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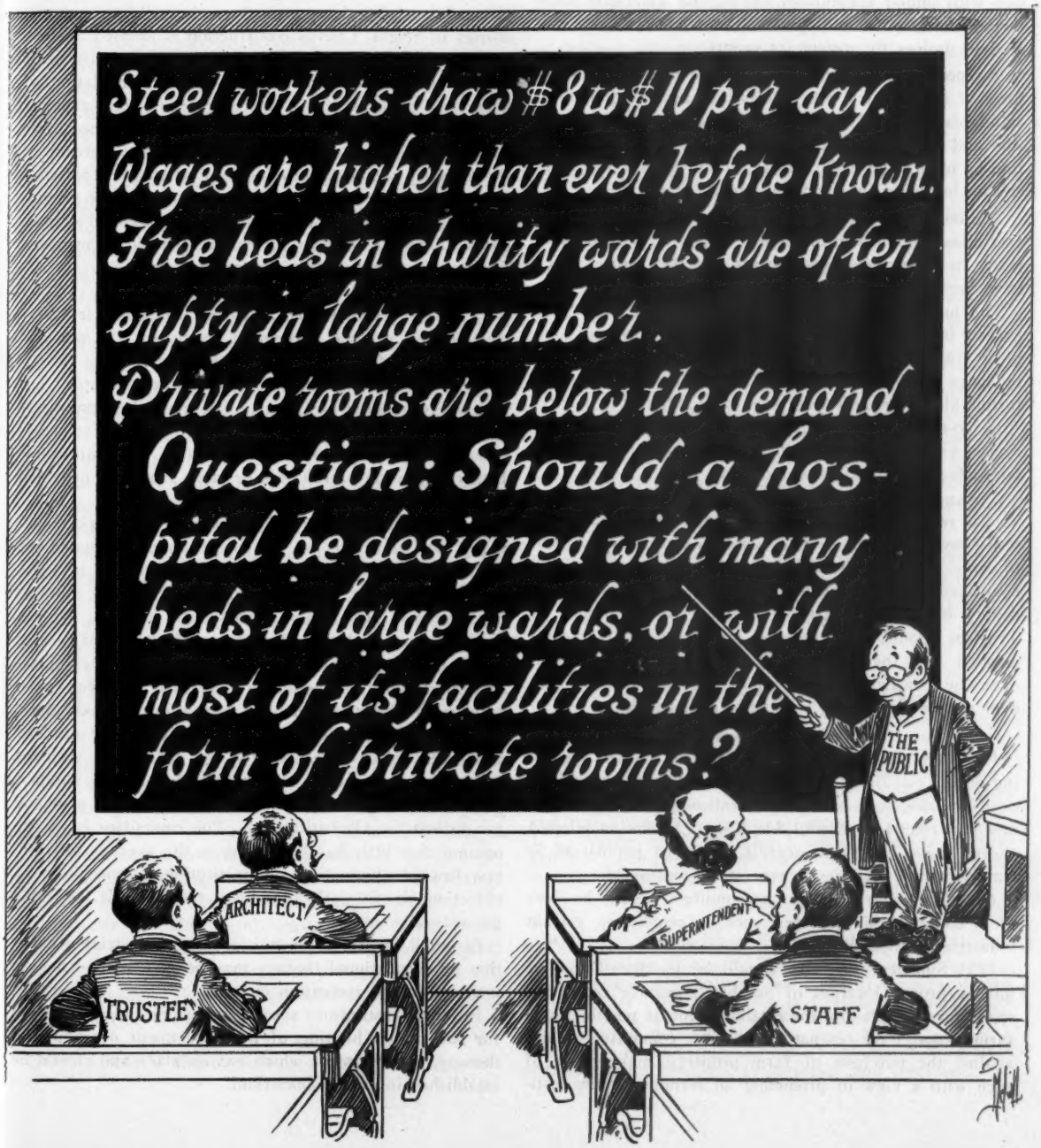
HOSPITAL MANAGEMENT

417 S. Dearborn Street, Chicago

Published in the Interest of Executives in Every Department of Hospital Work

The Class in Hospital Designing


Steel workers draw $8 to $10 per day.
Wages are higher than ever before known.
Free beds in charity wards are often empty in large number.
Private rooms are below the demand.
Question: Should a hospital be designed with many beds in large wards, or with most of its facilities in the form of private rooms?
THE PUBLIC
ARCHITECT
TRUSTEE
SUPERINTENDENT
STAFF

Standardization of Tuberculosis Sanatoria

Location, Construction, Medical and Nursing Service and Administration Dealt With in Important Report

[EDITOR'S NOTE: The following report on the standardization of sanatoria was presented at the meeting of the Mississippi Valley Sanatorium Association at Des Moines September 23 by a special committee appointed at the preceding convention to investigate the subject. Dr. Robinson Bosworth, of St. Paul, is chairman of the committee, and the other members are Dr. George F. Palmer and Dr. E. R. Van der Slice.]

The Committee on Standardization of Sanatoria, appointed by the President of the Sanatorium Section of the Mississippi Valley Conference last year, has carefully considered the subject matter, and after a consultation with similar committees serving the American Sanatorium Association and the National Tuberculosis Association, desires to present its report.

It appears that in the near future the tuberculosis sanatoria of this country will be classified according to fixed standards. Those of us interested in sanatorium construction and management may well anticipate this classification by others and make efforts now to present the proper showing when the examinations are made.

The committee feel that standards are necessary and a just classification helpful to each of us. It should assist many in acquiring improvements for the future which have been in the past denied us.

The more the committee has studied this matter the greater importance it attaches to a well rounded and complete anti-tuberculosis program, calling attention to the tendency of the public to rely too much upon the sanatorium alone for the results only to be obtained by a carefully co-ordinated and complete group of agencies, such as the visiting nurse, the dispensary, the follow-up system, educational activities, etc., etc.

1. PRELIMINARY ORGANIZATION AND SUPERVISION

It is recommended that the immediate Board of Trustees consist of three or five members especially qualified to serve, appointed by the County Board or other official agencies, but not to include in its personnel members of county board. At least one member of the Board of Trustees should be a licensed physician. It is recommended that there should be central state supervision over the construction and equipment of sanatoria and over matters pertaining to general management.

2. LOCATION AND SITE

(a) It is recommended that a site be selected bordering on the city limits, having in mind efficient transportation facilities, such as trolley or railroad, also city sewerage, gas, electric light and telephone. A location selected several miles from the nearest center of population or transportation facilities is especially condemned.

(b) The character of surroundings should be free from objectionable features, such as cemeteries, certain industrial occupations, etc.

(c) Sufficient property should be purchased to permit of proper location of buildings, provide recreation space for patients and the establishment, if possible, of a farm colony for ex-patients. The committee advise against the purchase of farm property, making use of such with a view of producing an income for the institution through garden truck, etc., using patient labor. The establishment of a farm and dairy are not recommended. Small truck gardening and poultry establishments are permissible in connection with the industrial occupation department.

3. GENERAL CONSTRUCTION

(a) It is recommended that infirmary, or bed patients be housed in two-story fire-proof buildings, and that the administration building be also fire-proof. Ambulant patients may be housed in units of 16 in one-story buildings or 32 in two-story buildings, the central or administration portion being fire-proof where the buildings are two stories in height. Canvas construction is advised against.

Twenty percent of the total capacity of the institution should be specially arranged for the accommodation of acutely ill patients. Thirty percent of the total capacity should be arranged for the care of other advanced cases not acutely ill, but still non-ambulant. Forty percent of the capacity should be provided for ambulatory patients. Especially planned quarters for children should be provided for those acutely ill from tuberculosis classified as open cases. Separate quarters for children should be provided for closed cases and for preventorium cases.

4. SPECIAL CONSTRUCTION

(a) It is recommended that each institution, irrespective of size, provide a room or rooms for the physical examination of patients, consultations, nose and throat, minor surgery, and other treatments, for laboratory use and where possible for X-ray. The committee especially recommend a completely equipped department for treatment of nose and throat conditions in all institutions. Every institution of 100 beds or more should be provided with a complete X-ray equipment.

(b) Special planning is necessary for the proper housing of staff and employes. A special building planned for each is best. If impossible to provide quarters in separate buildings they should be housed in wings not containing patients, but never in basement rooms. Nurses should be provided with pleasant, comfortable quarters in which the hospital or institution atmosphere is eliminated. Such quarters should be sufficiently removed from patients to permit of complete relaxation when off duty. A recreation or social room and facilities for outdoor amusements should be provided for nurses and also for employes in institutions employing either in any number.

(c) A recreation or social room should be provided for patients in all institutions. The committee is of the opinion that little has been done in the average sanatorium toward eliminating the institutional atmosphere so objectionable to patients whose residence is desirable for several months.

In small institutions provisions for industrial occupation or occupational therapy may be in a limited degree included in the recreation quarters.

In larger institutions special provisions should be made for the proper housing of the department of industrial therapy, a department which has its place and should be established in every sanatorium.

(d) In the opinion of the committee, staff dining rooms are not required or desirable in the smaller institutions. In the larger institutions where numbers of patients are cared for and where non-professional employes are present, such as stenographers, clerks, bookkeepers, wives and children of staff, etc., it is wise to provide separate dining rooms from those used by patients.

Servants in all cases should have and use a separate dining room.

(e) A room should be provided for the care of the dead, which can be reached by attendants with the least possible disturbance to patients, from which bodies can be removed readily and inconspicuously.

5. MEDICAL, NURSING, ETC.

(a) The medical head of each sanatorium should be a specially trained expert in the institutional treatment and management of tuberculosis patients. He should devote his entire time to the affairs of the institution.

In instances where small sanatoria find difficulty in procuring expert medical services, the committee recommend the Minnesota plan of dividing the full time of one physician between two closely located sanatoria.

A resident physician should be provided for each fifty patients.

(b) A graduate experienced nurse in sanatorium methods should be in charge of the nursing department. A nurse should be maintained for each ten patients in the institution. Non-graduate nurses may be employed under the strict supervision of a graduate nurse. The services of a night nurse should be available in every institution.

Dietitians. All institutions of moderate size should have a dietitian. The head nurse in small institutions may assume such duties.

(c) Domestic staff—steward. It is desirable to procure the service of a steward in an institution of 75 patients and over. The steward should have charge of the purchase of food supplies and their storage, under the supervision of the superintendent. He should have active charge of the culinary department and all employes so engaged.

A housekeeper should be employed in an institution of 75 patients or over. In smaller institutions her duties can be performed by the head nurse.

6. TRAINING SCHOOL FOR NURSES.

It is the duty of all large tuberculosis sanatoria to maintain training schools for nurses, if possible in co-operation with nearby general hospitals. Former patients, whose physical conditions warrant, may be admitted as student nurses.

7. INDUSTRIAL SHOPS AND FARM COLONY.

The committee desire to urge the establishment of industrial shops and farm colonies for the employment of ex-sanatorium patients, under proper supervision. The committee hold the view that one of the weakest links in the present campaign against tuberculosis is the management or lack of management of ex-patients, immediately after they are discharged from the sanatorium.

The waste of public funds may be in a large degree reduced by the avoidance of relapse in ex-patients, should they be given proper employment under strict and efficient supervision. Farm colony affords much of value towards solving the problem.

8. PATIENT LABOR.

Large sanatoria should develop a department of vocational training for the benefit of those advised to follow new occupations after discharge.

While under treatment for active tuberculosis and before such degree of improvement has been attained to permit of occupation in the industrial shops or farm colony, patient labor as an economical consideration in the management of the sanatorium is strongly advised against. Permission may be given patients to carry out any hospital duties, provided the medical officer is satisfied that it will have no deleterious effect. Occupational therapy under proper supervision for its psychic effect is approved.

9. OUT-PATIENT WORK.

The establishment of free tuberculosis clinics and the maintenance of full time visiting nurse service, by means of which cases of tuberculosis may be discovered and admitted to the institutions, and discharged patients or ex-patients may be kept under proper supervision, are urged as a public health measure second to none in importance in our campaign against tuberculosis. This service should be directly a part of the activities of the sanatorium or in close co-operation with it.

Large Gifts for Hospitals

Ten New York Institutions Get $300,000 Each Through Will of S. Schinasi

The most notable bequests made in recent years for hospital purposes have been announced following the filing of the will of Solomon Schinasi, cigarette manufacturer of New York, who died recently.

In addition to leaving $300,000 each to ten New York hospitals, six of which are named, the remaining four to be chosen by his son Leon, the will directs that a fund be established for the establishment of a new hospital to be known as the Solomon Schinasi Memorial Hospital. The estate amounts to $15,000,000, but the exact amount available for the hospital will not be known immediately.

The six hospitals which benefit from the bequests of $300,000 each are the Woman's Hospital, Lying-in Hospital, Presbyterian Hospital, St. Luke's Hospital, Sydenham Hospital and Children's Hospital.

A. H. A. Exhibitors Organize

Following the meeting of the exhibitors at the convention of the American Hospital Association in Cincinnati, it was decided to have a permanent organization, and that a local committee be formed in Montreal, where the convention is to be held next. It was also urged that a list of the registrants at the conventions hereafter be published daily, and that a list of exhibitors be published in the program. L. C. Walker, of H. W. Baker Linen Company, is chairman, and W. L. Chapman, of Becton, Dickinson & Co., is secretary and treasurer.

Will Meet in Cleveland

The American Medico-Psychological Association, composed of men engaged in hospital work and in neuropsychiatry, will have its 1920 convention in Cleveland, O., June 1-4. The meetings will be held at the Statler Hotel, Dr. Henry C. Eyman, of the Massillon, O., State Hospital, is president of the organization and Dr. H. W. Mitchell, of Warren, Pa., State Hospital, is secretary and treasurer.

Reconstruction Hospital in Sunny Italy

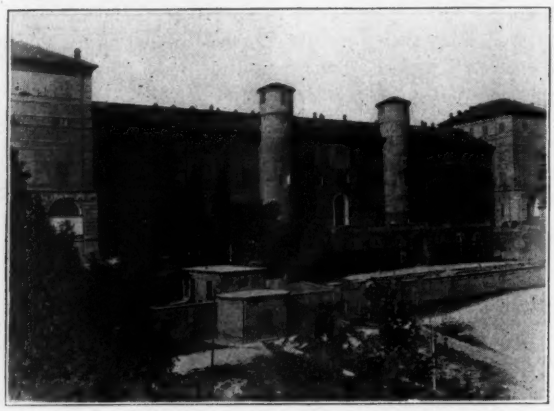
Princess Laetitia Gives Her Palace as a 250-Bed Hospital in Which Modern Therapy Is Being Employed

By Walter Morritt, with the Y. M. C. A. in Italy.

[EDITOR'S NOTE: Dr. Morritt, who is well known to hospital people as the former superintendent of Bethel Hospital, Colorado Springs, Col., has been doing some effective work as a member of the Y. M. C. A. organization abroad during war and since the ending of hostilities.]

The best for the boys. A palace for the poorest. A princess for their pains. This is literally true in Italy. Palaces have been turned into hospitals and members of royal households have given themselves freely in service to the wounded soldiers.

One of the finest examples of this patriotic, devoted



MAIN ENTRANCE OF MONCALIERI HOSPITAL

and at the same time scientific service is found in the city of Turin, in Northern Italy.

Situated on a commanding hill overlooking the beautiful city, the palace of Moncalieri is famous for its beauty, the beauty of its vast estate, its history and the marvelous panorama of city, river and snowcapped mountains spread out before it.

This palace was used as a hospital by Napoleon I in his invasion of Italy, and now it is again dedicated to the care of the maimed and wounded in the world's greatest conflict. Now as then, the presiding genius is a member of the House of Napoleon—Princess Laetitia, daughter of Prince Victor Napoleon, brother of Napoleon III of France.

The palace, part of which has now become a modern 250-bed hospital, was built in the fifteenth century and raised to its present magnificence by Victor Amedeo II and Victor Emanuel I, who died here in 1824.

It was the favorite residence of the latter and of Princess Clotilde, who died here in 1911.

Notable are the imposing quadrangle, the marble staircase and regal entrance. The corridor and salons are adorned with excellent paintings of battles and life-size portraits of all the sovereigns of this royal house, a constant inspiration to patriotism and courage to the soldiers on whom they seem to be looking with pride.

In the midst of such surroundings a model hospital of 250 beds has been developed, and it will compare favorably with our best institutions in America. The palace, with its high ceilinged, airy rooms, wide doors and spacious corridors, lends itself admirably to hospital needs, and the princess has not hesitated to alter and remodel wherever efficiency seemed to demand it.

The extensive grounds and gardens—acres in extent—have been converted into recreational and play-grounds for convalescents and into vegetable tracts, poultry farm and dairy to furnish ample and nourishing food for the patients.

The royal entrance to the building introduces one to an immense corridor, off which are the various administrative offices, pharmacy, diet kitchens, dressing rooms, etc. Here are also located first aid rooms, baths, barber-shop, disinfecting rooms and a small section for contagious cases.

The staff of this admirably conducted institution is headed by Princess Laetitia herself, and every department bears the stamp of her personality. She has also shown great judgment in the selection of her staff officers. The superintendent is Prof. Boccasso, M. D., Director of Her Highness Imperial and Royal Hospital First Concentration Point for the wounded. He is a man who stands high in medical circles and has great administrative ability. To him is due the completeness of the equipment of every department and the systematization of the plant.

There are two large airy wards flooded with light, air and sunshine, besides private rooms for officers and special cases.

Most of the work is surgical, and the operating rooms are new and modern, with rounded corners, smooth white finished walls and an excellent lighting system for both day and night.

The society ladies of Turin have stocked the hospital with ample surgical supplies, linen, etc. and each patient

A TYPICAL WARD

is provided with shirts, underwear, socks, cap, towel and slippers. All the necessary mending is likewise done by these ladies.

One thing which impressed me strongly was the cheerful and hopeful atmosphere which pervaded the whole place. Evidently the art of building up the morale of the

THE OPERATING ROOM

soldiers as well as their physical being has been well cultivated.

That leads me to say that the school developed here for re-educating these maimed soldiers has attained great efficiency and deserved fame and now a large store is operated in Turin for the sale of articles made by these reconstructed men.

Perhaps nowhere in Italy is occupational therapy developed to such a high degree as here, nor with such beneficent results. Not only are the manual arts and crafts taught, but other classes are also held for those who desire to improve their minds during their enforced idleness.

Well worthy of note are also the departments of mechano-therapy and hydrotherapy; large and well equipped in this as in other hospitals of Italy. The industrial hospitals could well learn from Italy the art of hastening restoration to strength and service in cases of fracture, etc., where after a given period mechanical movement is indicated.

Needless to say, the X-ray department and the microscopic and bacteriological laboratories are well equipped, for the princess and her friends have not hesitated to use their funds as well as to give themselves in service to the heroes of Italy. Something of the sacrifice of Princess Laetitia for Italy may be seen not only in this hospital and its magnificent service in healing and rebuilding the wounded, but in the death at Monte Grappa of her only son, who was killed after having been twice decorated for bravery.

RECONSTRUCTION WORK IS UNDERTAKEN

During the entire war this First Concentration Hospital for the wounded has maintained its beneficent work.

The nursing force is composed largely of soldiers, supervised by nursing sisters. An efficient nursing force as we know it in America is wanting in most Italian hospitals. Good training schools are the need here now, and there are indications that such schools will soon be a reality.

Italy's aristocracy has shown the true spirit of democracy in its unselfish service during the great war, and in this case has produced an institution well worthy of study.

As the soldiers, wounded for Italy's sake, cannot fail to be inspired by the portraits of heroes which look down upon them from the hospital walls and the magnificent living example of Princess Laetitia as she serves among them, so may the best and strongest in American life give of itself for the restoration of the wounded of America—the wounded not only in battle but in the great industrial struggle of the age.

PRINCESS LAETITIA,
Whose palace is used as a war hospital.

Cornerstone for $1,000,000 Hospital

The cornerstone for the Methodist Hospital, Memphis, Tenn., which it is planned will be a $1,000,000 hospital, serving three states, was recently laid with appropriate ceremonies.

Gives Hospital to Newton, Ia.

Vern W. Skiff, of Chicago, has arranged to build a hospital for his native town of Newton, Ia. A building committee has been named, and a modern institution is now being planned by the architects in charge.

Steedly Sanitarium Opens

Steedly Sanitarium, Chick Springs, S. C., has been opened for the reception of patients. It has a bed capacity of sixty. The institution is using a building formerly occupied as a hotel.

Operation of Ventilating Plant Important

Get a Qualified Engineer and Study Air Conditioning Results—Old Ideas on Subject Abandoned

By Professor John R. Allen, Director of Research, Experimental Bureau, American Society of Heating and Ventilating Engineers, Pittsburgh, Pa.

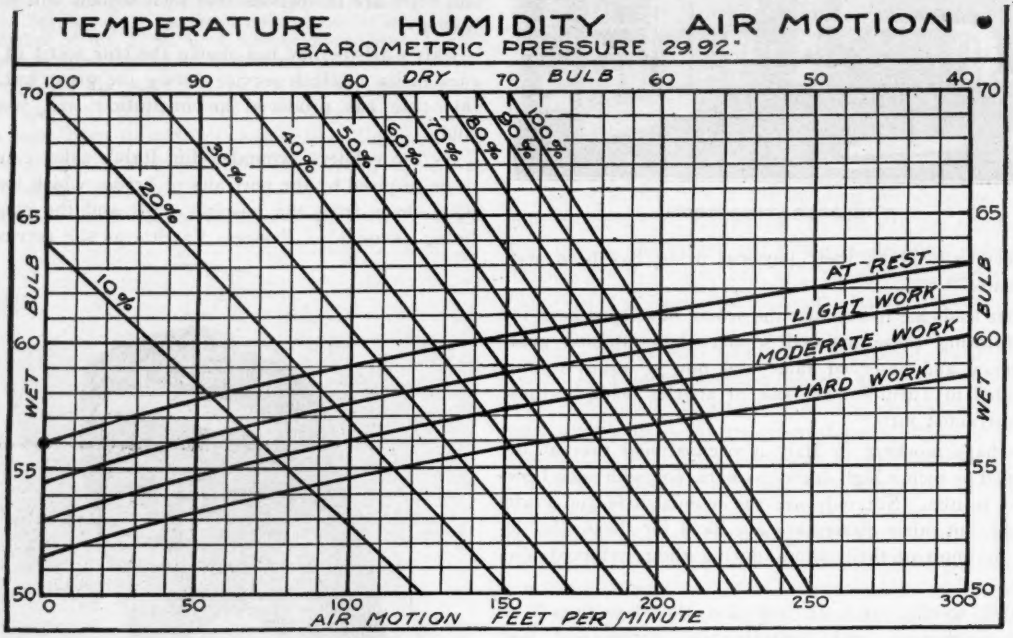


CHART SHOWS HOW VENTILATION REQUIREMENTS MAY BE OBTAINED

[EDITOR'S NOTE: Prof. Allen, who is one of the world's greatest authorities on subjects connected with heating and ventilating, spoke on the subject of ventilating hospital buildings before the Minnesota Hospital Associations at its Minneapolis convention last June. He kindly consented to put his remarks in form suitable for publication, and HOSPITAL MANAGEMENT considers itself fortunate to be able to present this paper on such an important subject from so authoritative a source.]

The ventilation and heating of the modern hospital is one of the most important considerations in connection with the health and comfort of the patients. Not only should a great deal of care be given to the design of the system, but equal care should be given to its operation.

Many of the popular ideas in regard to ventilation are found to be incorrect in the light of recent investigations. In general, the chemical composition of the air has very little to do with ventilation. Chemically, there is practically no such thing as fresh air. All air is substantially of the same chemical composition, and as far as the chemical composition of the air is concerned, there is no difference of effect upon the lungs from air inside the house as compared with air outside the house. There is a prevailing idea that ventilation consists of introducing a certain amount of outside air into a building. This does not constitute ventilation in the modern sense.

In considering the effect of ventilation upon the human system, the lungs may be considered as part of the skin, and as far as ventilation is concerned, perform the same function—that is, the control of the body temperature. One of the most sensitive functions of the human body is the control of temperature. A change of a few degrees above or below normal in the human body produces serious physiological conditions. The temperature of the body is controlled by the action of the skin and lungs. This cooling action is controlled by the air passing over the skin and carrying away heat both by contact and by evaporation. The effectiveness of the air in controlling the temperature regulation of the body depends upon temperature, humidity, and air movement. The chart reproduced herewith, prepared by the Department of Health of the City of Chicago, shows the relation between these three conditions of the air in order to get the greatest bodily comfort.

The humidity in a room is measured by means of wet and dry bulb thermometer, sometimes called a hygrometer or a psychrometer. This instrument consists of two thermometers of equal reading placed side by side. One thermometer is left in its normal condition and the bulb of the other thermometer is kept wet by means of a linen cloth dipped in water. The air motion is usually measured by some visible gas or light toy balloons in the room. If the air motion is zero, the determining factor is the wet bulb temperature. As the air motion increases, we must increase the wet bulb temperature to maintain comfort. In determining the proper wet bulb temperature for comfort another factor must be taken into consideration. This is the physical state of the people in the room.

The four curves in the chart marked "at rest," "light work," etc., show how the wet bulb temperature must be varied depending on the physical state of the occupants. In using the chart it is necessary first, to determine the air motion which prevails in the room. Let us suppose the air motion is 30. Find the intersection of the air motion and the line representing the physical state, which in a hospital, would usually be "at rest" and suppose intersection of the line of 30 feet air motion with the line "at rest" is 57.

DETERMINING VENTILATION REQUIREMENTS.

The humidity readings as taken by a psychrometer are now plotted, using the scale at the top of the chart marked "dry bulb." The dry bulb is assumed to be 70. The scale at the border on the right marked "wet bulb" reads 61. By following down the line from 70 degrees in the dry bulb and following across until this is intersected by the line of 61 degrees for wet bulb, we read that the corresponding humidity is 60%. From our previous condition of air motion and physical state we required a wet bulb of only 57. It is evident that the actual wet bulb is now four degrees too high. This can be remedied in two ways; by either increasing the air motion in the room, or by reducing the humidity. You will see from the study of this chart that bodily comfort very largely depends upon the wet bulb temperature, and this can be used as a measure of the comfort of a room.

In addition to the factors given above, there are three other factors to be considered—dust, bacteria and odor. Dust in hospitals is not as important a factor as in other buildings, such as factories, but in certain localities it might be an important consideration. It should, if possible, be reduced to a minimum. Dust must also be considered in connection with bacteria, as much of the bacteria in the air is carried by the dust and not by the air itself. Just what effect the bacteria of the air has upon the health is still an unsettled question, but, of course, an excess of pathogenic bacteria must be undesirable.

The last consideration is that of odor. Odors in themselves are not in general injurious, but their effect is largely psychological, and for that reason they cannot be neglected. Most people judge the condition of the ventilation in a building by the odor. It is not an infallible test, but you cannot convince a man against the evidence of his own senses, and therefore it is always an important consideration.

As far as temperature, humidity and air circulation are concerned, there is absolutely no necessity of introducing outside air. These could all be controlled by re-circulating the same air. Most people do not understand the essential reason for opening the windows, particularly in the summer time. It is not to introduce so-called pure air, because in most cases the air in the room is chemically the same as the air outside, but they open the windows in order to reduce the temperature and get air circulation, principally the latter. In many cases, where the complaint is made that the air in the room is bad, all that is necessary to improve the conditions is to put in some means of circulation. Circulation is one of the important considerations in ventilation; and it is often lost sight of. If temperature, humidity, and circulation were the only considerations in ventilation, then very little outside air would be introduced for ventilating purposes, but we have the other factors in the problem: dust, bacteria and odors.

HOW TO REDUCE ODORS.

The only method in general use to reduce odors is by means of dilution, which necessitates the introduction of large quantities of air free from odor. The disagreeable odors of most hospitals can be reduced only by the introduction of large quantities of air from the outside. This outside air, however, if directly introduced into the room, may produce conditions of temperature and humidity which are very undesirable. It may also introduce dust. It is therefore necessary in any well-ventilated hospital to have the condition of the air in the hospital under control at all times. This means a properly installed ventilating system must control temperature, humidity, circulation; and, in addition, reduce the dust, bacteria, and odors to a minimum.

In many hospitals very complete ventilating plants have been installed, but have never been satisfactory, largely due to the fact that they have not been satisfactorily operated. The operation of the plant is just as important as its original installation. Every hospital executive should know or should find out how much his engineer knows about air conditioning, and give him the proper apparatus so that he can determine the condition of the air in the various portions of the institution. He should also know that his engineer understands his plant thoroughly and that he knows how to control the air in the building in order to obtain the desired conditions.

In many hospitals and institutions, the engineer that burns the least coal is the best engineer. This is the same as saying that the surgeon that uses the smallest amount of surgical dressings and antiseptic solutions is the best surgeon. You cannot have something for nothing, and if you desire to ventilate a hospital properly, you must be willing to pay for it. Do not judge the operating engineer in a hospital by the coal-pile, but judge him by the air condition of the building. It is not fair to expect a poorly equipped engineer at a small salary to be competent and to understand the operation of a complicated heating and ventilating system, which may cost $100,000 or more. It is important in a hospital that you have a competent engineer, that he is paid good wages, and then you can demand satisfactory results.

In the state of Minnesota the law provides that all school buildings shall have a properly installed ventilating system, but the law does not require that the ventilating plant be operated. The same is true in some hospitals, where the heating and ventilating system has been well installed and is complete in every detail, but where in many cases the ventilation is turned off either wholly or partly most of the time, and is never properly operated. The furnishing of properly conditioned air to the hospital is just as important as the water and milk supply, and should be looked after with equal care. The neglect of this phase of hospital operation may be just as detrimental to the patients as any other factor in hospital management.

Davenport's New Hospital

Davenport, Ia., has a new hospital, St. Luke's, work on which has been practically completed. It is expected that it will be ready to open in a few weeks.

Social Service Auxiliary Proves Its Value

Mt. Sinai Hospital, of New York, Uses Volunteer Workers in Addition to Paid Staff of Twenty

By Mrs. A. A. Cook, President Social Service Auxiliary, Mt. Sinai Hospital, New York City.

[EDITOR'S NOTE: The following paper on "Hospital Social Service" was read before the National Conference of Jewish Charities at Atlantic City, N. J., May 30, 1919. The increased number of hospitals establishing social service departments indicates the value and interest of this paper, which goes into considerable detail regarding the activities of Mt. Sinai along this line. The work of volunteer and auxiliary workers is especially significant.]

The Social Service Department of Mount Sinai Hospital was started in 1906, and has gradually grown until it now consists of a staff of twenty workers with our head worker, Mrs. Mabel Montgomery Boorum, in charge.

The work is divided as follows: One worker covers the medical wards in the hospital; another the surgical wards. There are two workers in the children's department, three in the tuberculosis clinic, one in the adult cardiac clinic, two in the children's cardiac clinic, two in the orthopedic and poliomyelitis clinic, with a part time assistant, and two workers for the follow-up work of luetic cases.

An investigator visits the home when it is doubtful whether patients are entitled to free hospital or dispensary treatment. Every afternoon a kindergarten teacher comes in for two hours to teach and entertain the children in the wards who are well enough to go up to the roof, where a room was equipped for their use. Three clerical workers are also included in the staff.

This seems a very large department, but even so it does not cover either the admitting department of the hospital or many of the dispensary clinics, and the demands made upon us are such that we cannot always do the intensive work that we should like to.

Some of the figures in our annual statistical report give an idea of the volume of work accomplished during the year 1918. We had under our care 7,570 cases, of which 4,601 were new. We had 38,689 consultations in the office and wards; 17,601 visits were made in the homes and 1,955 visits of co-operation with outside agencies were made. We referred 3,931 cases to co-operating agencies, hospitals and dispensaries, and 1,282 were referred by agencies to us.

AUXILIARY OF TWENTY.

Although there have been paid social service workers in the Mount Sinai Hospital since 1906, the Social Service Auxiliary, which consists of a board of twenty women, was organized only two and a half years ago, and I believe that the auxiliary has proven valuable in many ways. The workers have often expressed their appreciation, not only of the actual work done by the members of the board, but of their sympathy and understanding of the difficulties which present themselves.

With the growth of our department, the Board of the Social Service Auxiliary has been sub-divided into various committees. There are committees for the children's department, the tuberculosis clinic and the cardiac clinics. By subdividing the board of the auxiliary into committees, we are able to follow many more cases carefully.

A committee on employment takes up cases for employment, which often require more time than our staff workers can give. It is not an easy task to get work for the handicapped, but there is no more constructive manner of aiding a family than by increasing its earning capacity.

A clothing committee collects and takes care of all the clothing, both old and new. Seventy women, divided into various sewing groups, meet regularly every week, and have not only made hundreds of garments but have met the expenses of the same.

Although we are supported by hospital funds and the Federation for the Support of Jewish Philanthropic Societies, we cannot meet all the needs brought to our notice and the members of the Auxiliary are always generous in giving financial assistance.

VOLUNTEERS OF VALUE

A large group of volunteers have been a great value, doing clerical work, making home visits and acting as clinical secretaries. The clinical secretaries have assisted the doctors in the dispensary by interviewing patients and writing up their histories. They were especially helpful in the past year, when the doctors were overburdened with work, owing to the condition of war. The volunteer, when working in a clinic where there is no paid social worker, has the opportunity to bring many cases which need our assistance to the attention of our workers.

Our workers not only interview every free patient in the wards, but when they realize that a ward patient who has paid in part for his hospital care (ward patients at Mount Sinai are never charged full maintenance rates, and no ward patient pays anything for medical service) is obliged to remain over an extended period of time, and may not be able to continue payment without hardship to the family, they arrange to have such payments canceled. Many cases are referred to us by the dispensary doctors where there are no paid social service workers.

In the tuberculosis clinic it is very essential to teach the patient, not only to take proper physical care of himself, but to eliminate as far as possible the danger of infection to those around him. To move a family to sanitary living quarters, to secure sanitarium care for the patient, to provide extra nourishment, to constantly try to educate the families in the laws of hygiene—these are the methods which a worker employs to improve the condition of the tuberculosis family. Preventive work is effective by giving extra nourishment, usually milk and eggs, to members of a tuberculosis family who are in a run-down condition, and who would be particularly susceptible to contracting the disease.

In the orthopedic and poliomyelitis clinic a considerable part of the time of the workers is given to massage and treatment. This may be regarded as purely medical work, but the workers take advantage of the regular

weekly attendance of the children in the clinic to teach the mothers to take proper care of their little ones. Children who formerly were always dirty and ill-clad, now come looking as neat and clean as any child could wish to be.

GIVE COCOA TO CHILDREN

With the kind cooperation of the Union Settlement, our very friendly neighbor, we have had classes for corrective exercises under the most experienced leaders. Individual attention has been given to cases of severe deformatives. The children visit the clinic for examination and records are kept of the general condition, weight and chest measurements of each child. The children have shown marked improvement. Cocoa has been served to the children after their exercises. At first they refused to drink the cocoa, for they doubtless were accustomed to tea and coffee, but the children have come to like it and now think it is real treat; a lesson in itself which was well worth teaching.

In the follow up work of luetic cases, our most imporant duty lies in impressing the patient with the necessity of coming for treatment. It has frequently been stated that satisfactory results cannot be obtained in a luetic clinic without a social service worker. The busy doctor cannot give sufficient time to impress the patient with the necessity of regular attendance and continuance of treatment and to teach and tell him, not only to take care of himself, but to protect others from infection. It is the social service worker who also persuades other members of the family to come to the dispensary for examination and to undergo treatment if necessary.

The character of the luetic work is of such a nature that the gratest tact and discretion of a worker is essential to get the cooperation of the patients. The very distressing results of the disease, coupled with the fact that usually a cure is effected if the case is treated in the early stages, convinces one that there is no more constructive work to be accomplished in a social service department than the follow-up of these cases. During the war our government has given a great deal of attention to the men suffering from lues. There is a growing public interest in coping with this social evil, and we want to do our share in alleviating a condition from which society is suffering so widely today.

In the children's department a special effort is made to do intensive work. A visit is made to the home of every little patient, before the child returns to the parents, to determine if we can safely send the child home again, and another visit is paid after the child is discharged from the hospital. The necessary follow-up work is done in these cases as all others.

During the past summer we have had interesting comparisons of the different methods of improving the condition of undernourished children. A large number of children received extra milk daily, and in some cases eggs were also provided. After receiving this extra nourishment for four months the average gain of the children was 4½ pounds. In cases where there was satisfactory cooperation between the family and the social service worker, we found the greatest gain, showing the improvement was due not only to the extra nourishment supplied, but to a more intelligent care of the children.

TONSILLECTOMY WARD

During the past year a special ward for tonsillectomy has been opened in the children's dispensary. The children are kept twenty-four hours, and it was advisable to find out if their stay was sufficiently long to insure a satisfactory recovery from the operation. By having our social service workers weigh the children immediately before and one week after the operation, we found that the average loss in weight of thirty-four children was only fourteen ounces during the first week. In five cases where there was a loss at the end of the week of 3½ to 4 pounds, there was an average loss of only ten ounces at the end of the second week.

There is an increasing demand for the public health nurse. To meet this demand, the Mount Sinai Training School for Nurses has, during the past year, given to some of its pupil nurses three months' training in the Social Service Department.

Each pupil nurse is sent to the different departments in turn and is trained under the supervision of the worker in charge of that department. Short, comprehensive talks on public health and case work are given by Mrs. Boorum, our head worker. The pupils attend the regular weekly committee meetings, when cases are discussed and plans for relief are worked out.

The amount of time that the pupil nurses have given to social service has been entirely inadequate, but it has been valuable as an experiment. There is a divergence of opinion as to whether a medical social service worker should be a graduate nurse. The opinion prevails among hospital social service workers in New York that the efficient hospital social service worker must be a graduate nurse. It is undoubtedly true, however, that part of the present curriculum of the training schools, as for example, experience in the operating room, might be eliminated and subjects dealing with economic and social conditions should be included in the course of training. A special course of training for medical social workers is needed. This need is well recognized by many people interested in the subject, and no doubt such a course of training will soon be organized.

Eight-Hour Nursing Service

Presbyterian Hospital of New York Establishes Shorter Hours for Students

Presbyterian Hospital, New York, has been added to the list of institutions which have put their nursing service on an eight-hour basis.

Heretofore nurses on the day shift have worked nine and a half hours, and those on night duty eleven hours. The new schedule provides a fifty-six hour week for night and a fifty-two hour week for day duty. It is expected by the management that the shorter hours will bring more efficient service and improve the health of the nurses.

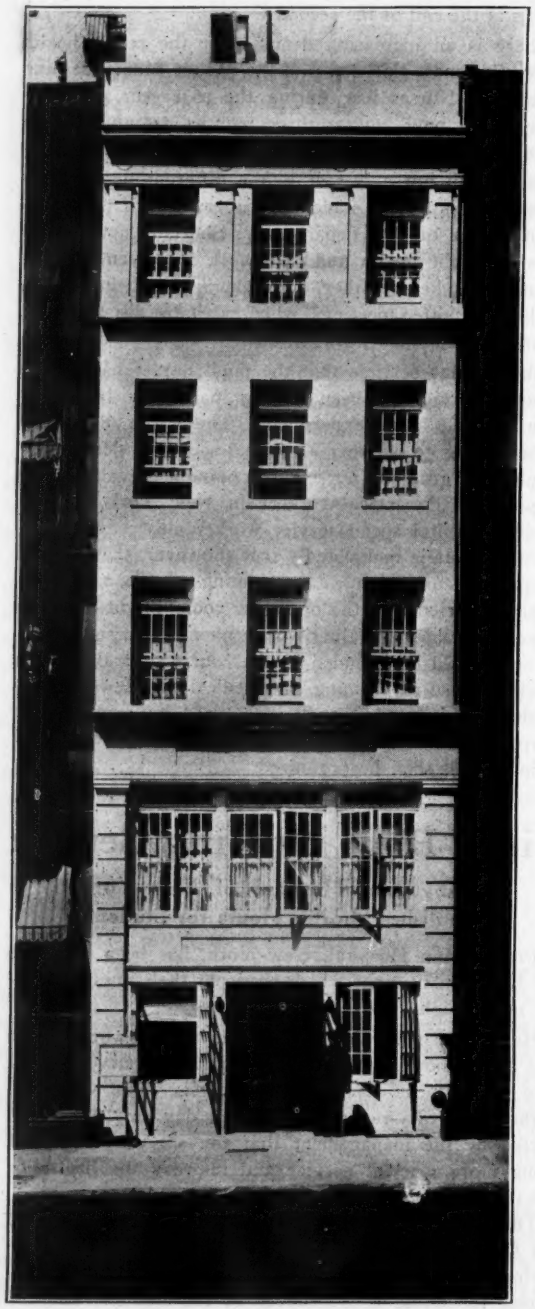
The fifty-two hour week included eight hours a day for five days and six hours a day for the remaining two, giving a free half day on Sunday and on one other day during the week. It is believed by the administration of the hospital that this will provde more time for study and recreation.

Small Organization for Clinical Diagnosis

New York Diagnostic Society Establishes Institution Along New Lines With High-Grade Equipment Provided

By Francis Darrach Walton

When it was announced last fall that the New York Diagnostic Society had succeeded in raising $300,000 to cover the construction of its first Diagnostic Clinic, much interest was evinced in the matter of the kind of building that would be erected.



NEW BUILDING OF NEW YORK DIAGNOSTIC SOCIETY

Dr. M. Joseph Mandelbaum, President and founder of the Society, had given some hint on this question when he stated two years before, at a dinner tendered to him by the other members of the Diagnostic Society, that when any clinic or when any science that required the close investigation that disease required in order to secure proper diagnosis is hampered by being too large, it prevents the work being done that a small institution, with a group of men who are well acquainted with each other's methods and have a proper system, can establish. Dr. Mandelbaum has kept this thought definitely in mind in constructing the first New York Diagnostic Clinic, which opened in June of this year.

Previous to the fall of 1918 a nondescript building of indefinite age had stood at 125 West Seventy-second street. This was purchased and torn down, leaving merely the two bare side walls. On this scant structure the engineers for the Society have succeeded in erecting a building that fits perfectly those general specifications of Dr. Mandelbaum mentioned above.

The exterior of the clinic is particularly marked for its seeming height, which is merely an accentuation caused by its extremely narrow frontage of twenty-five feet. Into this small building of five stories, Dr. Mandelbaum and his associates have succeeded in installing a system, which while it does not entail crowding in the least, allows the working of a small, easily manageable system.

However, it has been no small task to fit all the essential instruments for a complete diagnosis into this small building. The cost of equipping the building was very near $100,000, and all this equipment has been so arranged as to give the most efficiency, and render it possible for the twenty examining specialists to see in the neighborhood of five hundred patients daily.

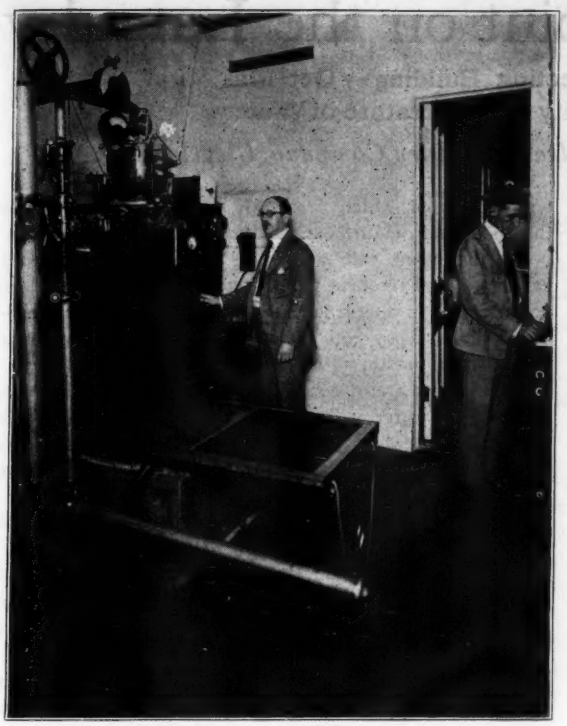
This has necessitated using every available inch of the clinic. The departments of cardiology, endocrinology and orthopedics, with the research laboratory in the rear, are all located in the basement.

The street entrance opens upon the main reception hall, which is a wide, spacious room. At the left of the entrance, in the reception hall, is situated the cashier-telephone-and general information booth, while at the right and facing the first booth is the Department of Social Research, which is connected with the clinic, and which takes charge of the cases of the delinquent patients.

In the rear of the ground floor is located the Department of Fluoroscopics, X-ray, and Dental X-ray, as well as the Pathological, Bacteriological and Serological Laboratories.

The second floor front is given over to a large, well systematized history room, the general medical, and general surgical examining rooms, and waiting and record rooms. In the rear is located the directors' office, the Clinic Library, and the directors' examining room.

The third floor but for two rooms—the gynecology and the genito-urinary room—is entirely given over to the



THE X-RAY DEPARTMENT

operating theater. This includes a small diet kitchen at the front, the anesthesia room, the sterlizing room, the main operating room, with a smaller operating room in the rear.

The fourth floor is divided into nine examining rooms and a general examining room. Across the front are the neurology, the gastro-enterology, and the cardio-pulmonary rooms. Grouped in the center are the departments of dermatology, rectal, dentistry and pediatrics, while in the rear there is a small waiting-room which opens into the remaining two examining rooms, for the ear, nose, throat, and eye department. Opening off the main corridor in the rear is a doctor's rest room.

The fifth floor is made into one large twelve-bed ward, with three private bed rooms in front and kitchen and bath in the rear.

THE PATHOLOGICAL LABORATORY

The whole clinic is built on the simplest of lines to insure perfect co-operation between departments and between the various specialists, for a small institution is absolutely necessary for collaborative diagnosis, Dr. Mandelbaum maintains. When questioned about room, he insisted that there was sufficient, and that no mistake had been made in planning a small clinic. As proof positive that the New York Diagnostic Society places all its faith in the "small institution," discussions are under way to erect a similar institution on the New York East Side.

For the Hospital Library

Barnes Hospital Catalogs Books Most Suitable For the Use of Patients

The St. Louis Public Library has issued a catalog, "Five Hundred Books for Hospital Patients." which it is announced was compiled at the request of Barnes Hospital, of St. Louis. The books which are catalogued include the following classes:

Light and entertaining fiction.
Fiction with more extended plots.
Longer novels.
Stories men like.
Mystery and detective stories.
Short stories.
Short stories to read aloud.
Books with religious significance.
Stories for children, suitable for grown-ups.
Poetry.
Plays.
Essays.
Satire and humor.
Travel.
  More exciting books of travel.
Out-of-doors books.
  More exciting out-of-doors books.
History.
Biography.
Books on the war.
  Fiction.
  Non-fiction.
Miscellaneous.

In an introduction to the catalog, Miss Elizabeth Green, librarian at Barnes Hospital, says:

"Reading in a hospital is a matter of more than passing interest. Usually we think of one aspect only, relief from the tedium of a hospital experience. This has its value and in itself more than justifies a hospital library. Another phase of interest, and one that is beginning to assume rather large proportions, is using reading as a therapeutic measure. Unless the hospital librarian knows the patient's condition as well as the contents of her books, she is not qualified to suggest the titles that will help the doctor in his treatment.

"Many patients who are not allowed to read might have that privilege with proper selection. The patient who is very weak may read a light-weight book with large type, without much fatigue. The patient depressed over his condition, who has a rapid heart and is extremely nervous, can read, if he can find something that will amuse and not unduly excite him, and that will 'take him out of himself,' thus contributing to a frame of mind that helps his condition."

Commercial Viewpoint on the Laundry

Lay Out Plant Before Erecting Building — Get Machines With Excess Capacity—Temperature of Water

By N. H. Collacott, Secretary Up-to-Date Laundry Company, Cleveland, O.

[EDITOR'S NOTE: The outside viewpoint is often valuable, and in this case the ideas of a commercial laundry owner with reference to the hospital laundry are exceedingly practical and pointed. The following is taken from a paper by Mr. Collacott read before the Ohio Hospital Association at its convention in Cleveland May 22-24, 1919.]

Consider for a moment that it became necessary for you to go to a hospital for medical attention. Suppose that you were placed in a room with immaculately clean white bed linen, curtains, table and chair covers; where all of the linen looked sweet and clean; that the nurse coming into the room to care for your wants wore a spotless, smoothly iron white gown and apron, with neat and trim collar, cuffs and cap. Would it not seem a bit more homelike and cheerful? And if, in addition to this, some soft, fluffy blankets brought warmth to you at night, would you not be more favorably impressed by your surroundings than is generally the case in a hospital today?

There is no excuse for hospital linen carrying the odor of medicine, etc. This can be entirely eliminated in the washing process by placing a few drops of some sweet-scented oil or perfume in the last water or rinse. In our laundry, where for years we have handled large quantities of hospital linen, we have used oil of citronnella with entire satisfaction.

Let us consider the various things which are necessary for the successful operation of the hospital laundry.

Naturally, the first thing to be considered is the building. It is not good policy to erect the laundry building until after the equipment has been decided upon, and the arrangement of the machinery laid out on paper so as to make possible the following of the most approved methods of laundry practice. When this has been done, the building can be designed around the layout of the equipment.

Don't let an architect or builder tell you how to build your laundry building. Confer with a laundry machinery manufacturer, and get a successful laundry owner to work with the machinery company, combining his ideas with those suggested by them, and you will have an efficient building in which to operate your plant.

The labor cost of a laundry is one of the biggest items of expense and every false and unnecessary step or move made by the operators is costly to the management and very unjust to the employes.

Again, I have in mind a hotel that is throwing away $66 every week because an engineer did not know how to properly figure the quantity of steam required by the laundry.

VENTILATION REQUIREMENTS

See that your laundry building has high ceilings—fifteen feet or more is none too high—and place exhaust fans of proper size and number to change the air every three minutes. The manufacturer of these fans can easily figure out your requirements. These fans should be placed in the ceiling if possible; otherwise, at one end or side of the building, having the opposite side provided with windows from which fresh air may be drawn across the room and out the exhaust fan openings.

See that your walls are white enameled, so that they can be washed frequently, keeping the laundry room clean and sanitary in appearance. Your employes will appreciate this and repay you in better service, due to a better condition of health.

If the floors are of concrete, arrange for proper drains, so that the water will not lie in pools about the wash room, and the floors can be cleaned quickly every day or two. It is also advisable to provide felt mats where the employes may stand while working.

The hospital laundry should be equipped with the most efficient machinery that can be obtained and improved machines installed from time to time to keep the plant up-to-date, thereby furnishing a maximum efficiency at all times. Many hospitals feel that they cannot afford to do this, but experience in the commercial laundries has proved that any machine which will make a saving of 20 per cent of its cost each year is a good investment, even if it is necessary to go out and borrow the money.

In my opinion, nothing but motor driven machinery should be considered, as this permits of the most efficient arrangement of the machinery. Alternating current should be used if possible, as the motors require less attention.

In the operation of the commercial laundry it has been proven conclusively that all lots of clothes should be of approximately the same size, according to the size of the washing machine, i.e., the lots should be uniform at all times. By standardizing you will save water and supplies and automatically regulate the operation of the entire laundry department.

Poor washing can, in nearly every case, be traced to overloading of the washer, and it is an easy matter to determine the proper size of load for each of the washing machines in your plant. When you have determined upon the size, don't guess; weigh!

Every hospital should have a water softening plant to furnish soft water to be used in every department of the hospital. In a very short space of time a water softening plant in the laundry will save no less than thirty-five per cent of the soap and in some cases has shown a saving of at least fifty per cent. In addition, the amount of soda can be reduced and bleaching entirely eliminated. The washing time can be shortened and the sum total of all of these items means a prolonged life of your linen. At the cost of linen today, and with no decline in these prices in sight, it is essential that the life of the linen be prolonged wherever possible.

IRONING OF UNIFORMS

Aprons, uniforms, bibs and other starched clothes can be starched in the washer or by dipping in starch and then placing in the high speed extractor and ironed direct on the presses. Some articles might necessitate a little hand ironing, but this should be discouraged even if it is

necessary to change the style of uniforms and aprons, as it will thus be possible to iron the entire article on the universal presses.

I should like to impress upon your minds the extreme importance of proper steam and water connections and outlets, as well as the use of steam at one hundred pounds pressure and hot water at 180 degrees Fahrenheit. I doubt if five per cent of the hospital laundries of this state are operating with these very necessary qualifications.

It is very important that your laundry equipment be kept over-capacity; in other words, more than is needed to turn out the work. This is desirable as the operators do not have to slow down their work to wait for the machines, and then too, when extraordinary calls are made on the laundry for large quantities of work, it can be turned out in the minimum length of time, thus reducing your purchases of linens.

Every possible precaution should be taken to guard moving parts of the machinery to prevent an accident to the operators. Machines should be cared for very carefully, oiled each day by some one who knows and understands how to do this work. Timing devices should be used wherever possible, remembering that the operators care for a number of machines, and that these devices soon pay for themselves.

Arrange so that the working conditions of your operators will be as desirable as possible, with plenty of light, fresh air, and the proper temperature in the working room, arranging it so that the linen comes to the laundry in uniform quantities, permitting the work to pass through the laundry in an even flow.

Look after the welfare of your employes in the laundry. If possible, give them a simple, wholesome lunch at noon in a cheerful, homelike room, providing them with tea and coffee, and if possible the balance of the lunch at cost. This makes for much more satisfied and efficient employes than those who find it necessary to carry their own cold lunch. I speak from experience and can tell you that it pays big dividends.

Red Cross Hospital Work

War Activities of Auxiliary Nature—Social Service Dominates Present Program

While the American Red Cross had been active in assisting the military hospitals for some years, the exigencies of the world war caused the Surgeon-General to request more extended cooperation with the Army and Navy, and the Red Cross eagerly complied.

Fifty-four thousand dollars was immediately appropriated for the equipment of army base hospitals, which at three to four thousand dollars each, have cost $75,000. In cooperation with the Army, fifty Army base hospitals were equipped and nineteen hospitals units placed at the disposal of the Army, the personnel of these institutions being previously assembled. To increase the efficiency of these institutions, there was adopted the policy of attaching them to a larger hospital or university which would act as a "parent." From its medical and nursing personnel was chosen the group which would form the hospital personnel. It was found that groups so chosen had an excellent *esprit de corps.*

In many cases these army base hospitals were supplied with complete refrigerating and laundry plants, telephone system, and machine shop for the manufacture of splints and the repair of surgical instruments.

Twenty-one base hospitals and four hospital units were organized and sent overseas by the Red Cross and twenty-five base hospitals and fifteen units were ready to leave, having been certified to the Surgeon-General as ready for duty.

The Red Cross was active in forming naval hospitals as well as Army institutions. In March 1, 1918, five chapters organized as many naval base hospitals, these costing less than the army hospitals, as they were of only 250-bed capacity, and when five Marine Hospitals were authorized to be mobilized for overseas duty by the Surgeon-General the chapters aided in the extension and the Red Cross gave much equipment. The amount expended in this manner was $32,000.

After the establishment of the many cantonment hospitals the funds of the Surgeon-General did not cover the cost of those luxuries which are necessities in hospitals. An appropriation of $220,000 was made by the Red Cross to form the nucleus of a fund for this purpose, which would later be obtained from the mess and post exchange.

EXTRA APPARATUS INSTALLED

Some epidemics were inevitable in the camps where so many thousands were gathered and the Red Cross did great hospital service during their prevalence. In one hospital where pneumonia raged, extra heating apparatus was installed. The Government afterwards refunded the money. Extra blankets and clothing in great numbers were also distributed to the sick.

Sometimes medicines would be retarded in transit; hospitals would be in need, the commanding officer would appeal to the Red Cross Director of Military Relief for the necessary supplies. He was empowered to grant the request immediately. Many lives were preserved in this manner.

The convalescent in the hospital created much consternation among the staff, so he was adopted by the Red Cross. Convalescent houses were built. These were under the direction of the commanding officer of the hospital and had a personnel of Red Cross workers.

These houses afforded the relatives of the patients a place to see them and prevented the visiting in wards. Entertainment was provided for them; through cooperation with the American Library Association, libraries were secured and books, magazines and newspapers were distributed among the wards.

With the return of the injured from the front, the Red Cross has been asked to assist in the work of reconstruction. The aim of its activities is to keep up the morale of the men and encourage the exercise of curative forms of recreation, as well as occupational therapy. In all cases the Red Cross directors work in conjunction with the chief of the physio-therapy department. This work is now being done in forty reconstruction hospitals.

Social service workers and Red Cross representatives are to be placed in the thirty-two hospitals operated by by the Public Health Service. Surgeon General Blue requested that the Red Cross enter these hospitals, and his invitation was immediately accepted.

Eliminate Waste Motion in the Kitchen

Proper Design Will Coordinate Equipment and Save Labor—Some Construction Principles

By Charles S. Pitcher, Kings Park, N. Y.

KITCHEN "A," SUPPLYING A GROUP AT KING'S PARK STATE HOSPITAL

[EDITOR'S NOTE: This is the first of a series of articles on the construction and equipment of kitchens, serving rooms and dining rooms. Mr. Pitcher is well known in this field, and has been called into frequent consultation in the design and equipment of many hospital kitchens. The next article of the series will appear in an early issue.]

Kitchen, serving room and dining room equipment are so inter-dependent upon each other that if one of these is deficient it is likely to cause inefficient service. The space where the equipment is set up should be constructed to fit the equipment, not the equipment designed to fit the space allotted to it. The kitchens, serving rooms, dining rooms and the equipment should be planned at the time of the other construction, so that there may be ample space for the efficient arrangement of the equipment. The kitchens, serving rooms and dining rooms are the stomachs of an institution; if the stomach is out of order, the rest of the place is also.

In planning kitchens, serving rooms and dining rooms, it is very essential that they should be so constructed that they will co-ordinate and harmonize with one general idea, so that their purpose may be carried out. They should be so constructed and the equipment so arranged that there will be as little waste motion as possible on the part of the employes.

Unless it is entirely unavoidable, the main kitchen should never be placed in the basement. If you wish the kitchen to look presentable and to be well ventilated, it should be located on the first floor, but, as in some of the general hospitals, college dormitories, and hotels it may be located on other floors. I am speaking of the main kitchen of a hospital or institution now, not of the ward diet kitchens. In institutions where there is plenty of land to build upon, it is highly desirable, to insure proper ventilation, that the kitchen be one story with monitor sashes hung from the centers, with automatic opening devices, so that the windows may be opened readily for ventilation. The kitchen should be so located that there is good cross ventilation through the side windows, for in summer, even the well arranged kitchens, are warm and stuffy places to work in. Where this cannot be done, it is well to have the kitchen in a block so that there may be cross-ventilation from one side of the kitchen to the other.

The kitchens, dining rooms and serving rooms, if possible, should be constructed in one block with as many different dining rooms, connecting with the kitchen through the serving rooms or pantries as is necessary for the proper classification of the patients. In general hospitals a different arrangement is necessary, as the general diet is cooked in the kitchen and sent to the wards for service in the small dining rooms, or at the bedside, the special diet being prepared in the ward diet kitchens.

One type of construction which is becoming popular in state hospitals is to arrange buildings in a group with the kitchen and dining rooms on one side of the group. The old type of ward dining rooms is, I believe, becoming less popular, as it causes ward attendants to be absent from the wards, disturbs the ward work, is not usually as well managed, is wasteful of food and keeps the smell of food in the wards. Ward dining rooms, however, are advisable where there are disturbed or feeble patients, who are unable to walk to the main dining room. In general hospitals and hospital wards of institutions, it adds much to the comfort of the patients to have diet kitchens for the preparation of the food for patients who are not able to eat the general diet prepared in the main kitchens.

Main kitchens, serving rooms, diet kitchens and dining rooms should be built in such a way that it is easy to keep them clean. If a poor selection is made of the material from which the floors and side walls are constructed, they cannot be kept in a presentable or sanitary condition. The selection of the material is one of the most important matters of the construction. Concrete floors or so-called sanitary floors have been used to a large extent in kitchens and serving rooms. These are unsightly and unsanitary, as they are porous and always look sloppy and readily absorb grease and particles of food. I have yet to see a concrete or so-called sanitary floor in a kitchen which was satisfactory.

A very satisfactory material for kitchen and serving room floors is what is known as Welch quarry tile. This tile is much heavier than regular tile, being nearly one inch thick, and will resist the hard wear in the kitchen much better than the regular tile. If a different selection of colors is required than those in which Welch quarry tile is made, there is a domestic flint tile manufactured of a thickness almost equal to that of Welch quarry tile. This domestic tile will wear practically as well as the quarry tile. The tile should not be laid too closely together, as the expansion caused by the heat will loosen it. When tile is properly laid it is a satisfactory floor material.

It is desirable to construct the side walls of the kitchen and serving room of enameled brick for a height of six feet from the floor, with plastered side walls above, as this material lasts indefinitely and is preferable to tile for side wall construction.

To prevent damage to the range, it is well to place the range on at least a two-inch raised brick or cement base, and finish the edge of this base with cove tile, for unless this is done the water used for cleaning the floor will run under the range and rust it. The kitchen may be kept much drier and cleaner if under the steam jacketed kettles, steam roasters and vegetable steamers there is a depression of at least two inches in the tile floor. Around the edge of the depression it is advisable to have a three-quarter to one inch raised edge, so that when the floor is scrubbed the particles of food, etc., on the floor will not wash over into the depression and clog the floor drains. It is desirable to have floor drains connected with the sewer through suitable traps under the steam jacketed kettles, roasters and steamers.

Refrigerators with refrigerating coils are preferable to those using ice for refrigerating, as it saves labor in hauling and handling the ice, is more sanitary, and keeps supplies in a better state of preservation. There are

KITCHEN "B," OPENED IN 1912

several types of refrigerating machines manufactured which are almost automatic and require little attention to operate them.

Garbage is an unsightly and insanitary thing to have around a kitchen. In the construction of future kitchens it is suggested to provide a freezing room in some convenient place where the garbage, while awaiting removal, may be stored in such a temperature that decomposition will be arrested. This is being done in large hotels, and as the garbage of an institution is worth a considerable amount of money each year for feeding swine, it would be a good investment to keep the garbage from decomposing, for the swine will be more healthy and better results obtained if the garbage is delivered to the piggery in an un-decomposed condition.

One benefit to be derived from doing this, outside of the profit from raising swine, is the elimination of disagreeable odors in the vicinity of the kitchen where garbage is usually stored. As garbage fed to swine should be boiled at the piggery, there would be no injury to the swine due to the fact that the garbage had been stored in the freezing room. This plan could be very readily carried out where there are refrigerating coils in the kitchens, for it would only be necessary to construct an additional room with suitable refrigerating coils.

Three things which are usually overlooked in construction are:

1. Sufficient serving room space.
2. Ample scullery space.
3. Proper bathing and toilet conditions.

Serving rooms are usually cramped and crowded. Little thought is given to provide ample scullery space. If you expect your main kitchen to look presentable, a separate room adjoining the kitchen should be provided for the light scullery work. The rough scullery work should be

done on another floor. In modern hotels it is usually on the floor below, when the kitchen is located on the third or fourth floor of the building. In institutions kitchens are usually located on the main floor, and it is then desirable to locate the scullery, where the rough work is done, in the basement. There should be a good tile floor, enameled brick or tile side walls, and modern scullery equipment.

It is seldom that you find a kitchen with bathing facilities for the employes or proper toilet facilities. Modern factories and hotels are much better supplied than hospitals or institutions. This is a serious defect, for no employes require better bathing and toilet facilities than those who work in the kitchen. A part of the basement, where there is no other floor space available, should be set apart for this purpose, and fitted up like a Y. M. C. A. bath room and toilet room. A more desirable plan than this, where land is available, is to build a small detached building connected by a corridor to the kitchen to give cross ventilation through the windows of the corridor to keep out the odors from the bath room and toilet. Frequently where there are toilets on the main floor of kitchen bad odors, which are almost impossible to prevent, will be observed in the kitchen.

Two photographs of well constructed kitchens are shown with this article.

Kitchen A is one of the kitchens of the Kings Park State Hospital, Kings Park, N. Y. This kitchen was opened in 1898, and cooks for from 1,800 to 2,000 persons. Although the kitchen has been in use for so many years, it is still in fine condition. The side walls are of enameled brick 6 feet high and the floor is of tile. All the old-fashioned wooden tables have worn out and have been replaced with new steel ones. A number of the cast iron kettles used in the kitchen have worn out and have been replaced with aluminum kettles. With the exception of the cast iron kettles and the old-type vegetable steamers the kitchen presents a very up-to-date appearance. This is an unusually convenient kitchen, although it is not as conveniently arranged as it would have been had the steam roasters been placed where the vegetable steamers are, and had the equipment been put in a line instead of diagonally across the kitchen. The range is placed thus instead of crossways.

Kitchen B was opened in 1912 and prepares meals for 800 persons. It was originally designed for four hundred. This is a very good type of kitchen. Since the photograph was taken the vapor pipes have been removed from the stock kettles. The kitchen is thoroughly up-to-date with the exception of the old type vegetable steamers.

Minimum Requirements for Laboratory

Recommendation Made That Laboratory Fee Be Collected of All Patients—Full-time Pathologist Advocated

By M. Smith, M. D., St. Anthony's Hospital, Oklahoma City, Okla.

[EDITOR'S NOTE: The importance of laboratory service has been properly emphasized in discussions of standardization, and it is unquestionably true that more attention is being given to this department than ever before. The following paper, read before the Oklahoma Hospital Association convention at Muskogee May 21, 1919, is of special interest to the hospital which is contemplating establishing a laboratory service.]

The hospital of today has become a diagnostic institution and has assumed a different status than in the past.

In this transformation the hospital has assumed a greater responsibility. For instance, the patient, when he comes to the hospital, is desirous of knowing what causes his discomfort or disease; he wants to know this first, before any treatment or operation is instituted. He demands of the hospital, doctor and the management that they give him what modern medical science has developed as safe and sound. In the diagnosis of his case we find three things presenting themselves:

First, history.

Second, physical examination.

Third, competent laboratory.

One or two of these is not complete without the third, and efficiency demands full team-work.

Inasmuch as this paper is concerned with the minimum laboratory requirements, I would say first that there is no minimum or maximum requirements; all necessary laboratory work must be done to arrive at a proper diagnosis; and, secondly, if the hospital laboratory is not prepared to render this service, then the patient and doctor should be informed, so that they may get the information at a laboratory that is able to render the physician the assistance he desires in order to arrive at a positive diagnosis.

The object of all laboratory procedures being to assist the clinician in making a more satisfactory and complete diagnosis, for the treatment of disease in the practice of medicine and surgery, I would signify as a minimum requirement in a general hospital that all patients admitted should have a complete routine blood and urine examination, and a Wassermann on all ward cases and all other cases when indicated.

CHARACTER OF EXAMINATIONS

In cases of suspected malignancy, a tissue examination should be made. In abnormal conditions of the gastro-intestinal tract, gastric analysis and feces examination; in suspected typhoid, a blood culture and Widal; in respiratory diseases, sputum examination, and typing in pneumonic infections. In diphtheria, and all infections, including surgical infections, smear and cultures should be made.

Coagulation time should be taken on all nose and throat cases before operation, and on all other cases in which there is reason to believe the coagulation time is delayed.

In lesions of the cerebro-spinal tract, a routine examination of spinal fluid should be made in all cases where additional information is desired.

Before a transfusion of blood, both the donor's and recipient's blood should be typed.

In primary syphilis the Darkfield examination should be made.

In order to proceed efficiently in the foregoing outline of work, and to facilitate satisfactory results, a minimum requirement of equipment would call for the following: Blood counting apparatus, microscope, centrifuge, incubator, water-bath, water still sterilizer, microtome for paraffin or frozen section, slides, pipettes, beakers, syringe, glass tubing, containers for obtaining specimens. This information can be acquired in detail from any reference work on bacteriology. An animal house ought to be added to equipment.

As an important part of the efficiency of an examination depends on the good condition, sufficient quantity and properly obtained specimens and material for examination, great care should be taken to see that this is done properly.

Along the line of minimum laboratory requirements would be an X-ray laboratory, which each general hospital ought to maintain, with equipment for fluoroscopic examinations, plate and dental radiography and treatment work. This department should be in charge of a Roentgenologist or competent technician. The records of examinations are made and filed in the same manner as in the pathological laboratory, the charge slips also being sent to the main office.

To summarize briefly, the minimum requirement for equipment would be the necessary apparatus and material to carry out proper technic of examination of routine blood, urine, gastric, feces, tissue, sputum, typing, smear, culture and serological examinations; to be done in one large room arranged conveniently and separately for the different examinations, or, if available, and preferably, a suite of laboratory rooms, as chemical, bacteriology, pathology and serology.

In connection with the above equipment should be an office with a complete recording and filing system of all examinations made. For example, there should be a patients' register, giving patient's full name and address, and number. Each patient has a card with name, number and other necessary data, which is filed alphabetically, also an envelope with patient's number, containing all examinations for one year and filed numerically. This makes it very easy at any time to refer to any past examination.

FULL-TIME PATHOLOGIST

In regard to the management of the laboratory work, a full-time pathologist should be in charge to direct the work and pass on all examinations and reports. One, two or more trained technicians, with assistants, should be employed, the number of each depending on amount of daily examinations being made.

As the question of financing the laboratory enters into its management, all hospital patients, except charity patients, are charged a routine fee. Outside patients, unless unable to pay, are charged a moderate, reasonable fee, according to examination.

The collecting of laboratory fees of hospital patients, and in fact of all outside patients, in order to avoid confusion, is best handled through the general or main office, by having the laboratory send to the office a charge slip with necessary data and description of examination for all examinations made in the laboratory. These are then filed and checked off as they are paid in the main office and kept there.

This laboratory, however simple its beginning may be, if conducted in an efficient manner, will soon demonstrate its usefulness, and will continue to grow in a very substantial and surprising manner. The community in which this hospital and laboratory is established will soon show a greater competency than had ever existed before.

Warner Executive Secretary

Head of Lakeside Hospital Accepts Post of Director of the A. H. A.

DR. A. R. WARNER,
New Executive Secretary American Hospital Association

Dr. Warner, who retired as president of the American Hospital Association at the Cincinnati convention, was chosen executive secretary at a meeting of the board of trustees in New York October 6, presided over by Dr. J. B. Howland, the new president.

The change is effective November 1, by which time Dr. Warner will be able to leave the superintendency of Lakeside Hospital, of Cleveland, where he has had a notable career.

His appointment marks a new epoch in the affairs of the association.

The headquarters of the organization will be moved from Cleveland to Chicago. The Washington office will be abandoned.

The 1920 meeting in Montreal will probably be held October 4-10.

The American Association of Occupational Therapy was invited to meet with the A. H. A.

Michael M. Davis, Jr., of the Boston Dispensary, was appointed consulting chief of the Service Bureau of Dispensaries and Community Relations.

Similar organization of architectural service will be provided later.

State associations are to be given special attention and encouragement.

Occupational Therapy for Tuberculous

Mississippi Valley Sanatorium Association Discusses Basketry, Telegraphy and Manual Training at Des Moines

Occupational therapy, the nursing problem and the standardization of sanatoria were the three main topics of discussion at the meeting of the Mississippi Valley Sanatorium Association held in Des Moines, Ia., Sept. 23, in connection with the Mississippi Valley Tuberculosis Conference.

The attendance was large, and the meeting, presided over by President H. V. Scarborough, head of the Iowa State Sanitorium at Oakdale, lasted for more than four hours.

The discussion upon occupational therapy was opened by Dr. T. B. Kidner, of the National Tuberculosis Association. Dr. Kidner told of his successful efforts to introduce occupational therapy in many sanatoria, and declared that the field was a large one, hardly touched as yet.

He said that the necessity of providing some occupation for patients who were on the road to recovery, or not so ill as to be unable to use their hands, was obvious. Good results were attained even with inadequate and improvised equipment, he said, and it was possible to install some sort of a workshop in almost any institution. He did not recommend any particular line of work, but suggested telegraphy, basketry, manual training and other occupations as offering a fine opportunity.

Miss Beatrice Lindberg, secretary of the Minnesota Advisory Tuberculosis Committee, of St. Paul, told of the interest taken in basketry by patients in the Minnesota state and county sanatoria. She declared that it had been found advisable to provide material free of charge, as many patients were not able to make even a small financial outlay. She found that patients took up basketry with intense interest, and that this branch of occupational therapy was so interesting as to almost crowd out any other line of work.

The difficulty of obtaining nurses for tuberculosis sanatoria was emphasized in most of the addresses upon this division of the program. Dr. R. L. Williams, superintendent of the Wisconsin State Sanatorium, opened the discussion with a paper on "The Nursing Problem in Tuberculosis Sanatoria."

He declared that one of the great problems to be met was the fear of nurses of becoming infected with the disease, and that a campaign of education among prospective nurses might be of advantage. Miss Helen Hartley, of the Iowa Tuberculosis Association, was on the program for a discussion of "Sanatoria Affiliations with General Hospital Training Schools."

TRAINING SCHOOL MANAGEMENT.

"Sanatoria as Training Schools for Nurses" was the topic of Miss Anna M. Drake, of the Iowa Tuberculosis Association, formerly chief nurse of the Modern Woodmen Sanatorium. Difficulty in obtaining probationers was described by Miss Drake, who explained that even where it was possible to recruit the forces from recovered patients, it was often impossible to meet the standards required in most nurses' training schools, a high school education now being demanded in many states.

Dr. E. B. Pierce, secretary of the association, and superintendent of the Michigan State Sanatorium at Howell, told of the success of the training school operated in connection with his institution. First-year students are paid a nominal sum while in training, increasing gradually to a maximum of $20 per month, the amount paid being sufficient to defray incidental expenses and clothing costs. From six to eight nurses are constantly in training at Howell, he said, and the graduates have proven efficient and in great demand.

One of the most important papers of the meeting was that of Dr. Robinson Bosworth, executive secretary of the Minnesota Advisory Commission on Tuberculosis, who presented a report of a special committee of the association upon "Standardization of Sanitoria." It is printed in full elsewhere in this issue.

"Minimum Standard of Records" was the topic of Dr. J. W. Pettit, superintendent of the Ottawa Tuberculosis Colony, Ottawa, Ill., and "Minimum Laboratory Standards" was the topic of Dr. J. S. Pritchard, of Battle Creek.

"Minimum X-ray Equipment and Use" was the subject of Dr. S. A. Douglas, superintendent of the Ohio State Sanatorium at Vernon. Dr. Douglas was not able to be present, but his paper was read in his absence.

He urged at least enough X-ray equipment in every sanatorium to permit of effective diagnosis, and the keeping of a record of each case, showing improvement or loss, and outlined his idea of what should be the minimum equipment in any well organized sanatorium.

Staff Heads Are Appointed

Worcester City Hospital Names High-Grade Men for Full-Time, Continous Service

Dr. Ernest L. Hunt (Harvard 1902) has been appointed Director of Surgical Services and Dr. Edward B. Bigelow (Harvard 1904) has been appointed Director of Medical Services at Worcester, Mass., City Hospital, of which Dr. Charles A. Drew is superintendent.

Dr. Hunt and Dr. Bigelow are both enthusiastic students of medical progress and experienced laboratory workers. Both will give full time to the service of the hospital. It is expected that the addition of a progressive surgeon and a progressive physician as full-time continuous service advisors and instructors of the interns and junior members of the visiting staff will make for a better service and be worth the cost.

The hearty cooperation and assistance of the senior members of the visiting medical and visiting surgical staffs seems assured.

Hospital for Pneumonia Cases

The Brooks Cubicle Hospital, Brookline, Mass., has been opened for the reception of patients. It is to be used exclusively for the treatment of pneumonia patients, and was built according to the ideas of Dr. William A. Brooks.

Public Wants Facts About Hospital Work

Case Records Enable Institution to Give Complete Accounting, and Help Win Community Support

By John G. Bowman, Director American College of Surgeons, Chicago.

The keeping of case records in hospitals came about in a natural fashion. Long ago, as the practice of medicine developed into a profession, the more competent and conscientious practitioners made notes for themselves as to the physical condition of their various patients and as to what they did for their patients. These notes were aids to the memories of the doctors who made them, and a guide for other doctors when similar cases presented; they were an effort in the interest of the patient.

Then by very swift degrees medicine became a more complex and exact science and the need for notes or records in clinical practice became more imperative; and as this process went on and great strides forward occurred in medical science, like the discovery of bacteria, anesthesia, and asepsis, there came a quick development of hospitals with their cleanliness, their laboratories, their X-ray apparatus, their dietitians, their trained nurses, and their case records. All of these advances are to aid the doctor in the care of his patients.

The whole story of hospitals is one of natural evolution. Today the hospital is in a striking period of transition, changing from the kindly-disposed boarding house for sick people, which met a genuine need in its day, to the institution worth while on its own account, rendering service to the sick for which it assumes responsibility. In other words, the modern hospital is an institution where not only the competent study and treatment of sick people *may* occur, but where, also, the competent study and treatment of every man, woman, and child who enters its service as a patient *do* occur as a matter of clear-cut institutional policy.

HOW HOSPITALS SUCCEED

The remarkable success in recent years, financially and otherwise, of the comparatively few hospitals, which have instituted and carried forward this policy indicates the lines of hospital advancement during at least the next decade. The reasons for the success of these hospitals are the quick appreciation and gratitude on the part of the public for the service rendered and the resultant bonds of confidence created between these hospitals and their communities. The wholesome factor of competition means among hospitals, as among individuals or among nations, that success and prosperity will come where due on the basis of merit.

But to return now to case records: First, what are these records? Second, what element are the records in the success of a hospital?

First, case records are an orderly and written statement of the complaint of the patient, of the findings as to the physical and mental condition of the patient, of the treatment, medical and surgical, of the complications, if any, and of the final results.

Second, as to the relation of case records to the success of the hospital: If case records are essential to good hospital service, just why are they essential?

In answer to this question let us keep vividly in mind that the hospital exists for the patient. Let us assume that the hospital seeks to give worthy service to every man, woman, and child admitted to its care; that in return it seeks the confidence and good-will, and even the financial aid of its community. If these conditions are true, it follows that the hospital creates an equation which consists of service to the sick on its own part, balanced by proportionate and practical gratitude for that service on the part of the public.

The next and inevitable step is that the truth of the equation be sharply tested. Rational and convincing evidence as to the hospital's service is wanted by the public, and not general or sentimental optimism. In other words, because of its very importance, the hospital is under fire of criticism. In some practical fashion it must account for efficient performance in every department. It must account for the ability and in some measure for the moral worth of the doctors privileged to practice within its walls; for the completeness and dependability of its laboratory reports, including the X-ray; for the faithfuness and intelligence of its superintendent, its interns, and its nurses; and for the strength of all of these to work together in single purposefulness.

RECORDS SHOW RESULTS

How shall the hospital make this accounting? Well, results are what count and the results are to be found in case records.

The first practical reason, therefore, as here stated for the keeping of case records is that these records are a pledge of loyalty of service on the part of the hospital to its community. For example, a patient comes to the hospital, a diagnosis of appendicitis is made, the patient is operated upon and dies; unless an accurate record of the case has been kept showing the hopeless state of the patient and what was done for him, how can either the hospital or the surgeon justify a death from simple appendicitis?

Facts, facts—facts in the relevant personal history of each case, facts developed in the physical findings, facts brought to light by the laboratories and the X-ray, facts deduced through pliable wisdom from all of these and expressed as diagnoses—these are the foundation of the hospital. And unless the hospital as a matter of institutional policy is in possession of these facts, filed in an orderly fashion in justification of its work, it is entitled to little credit in its community or in the medical profession. To repeat, the character of the case records is a test of the hospital's loyalty to service.

Medicine in its application to the needs of the human body is both an art and a science. It can never be reduced to the simplicity or to the certainty that two and two are four. The variable factor of judgment and variations in individual patients is always present. Case records, if wisely kept, oer an invaluable means to the hospital staff to profit constantly by its own experience in practice.

Should Hospital Train "Practical Nurse"?

San Francisco Superintendent Points Out Conditions That are Increasing Demand and Broadening the Field

E. G. Arps, superintendent of Franklin Hospital, San Francisco, Cal., sees a need for the practical nurse, qualified for ordinary service and willing to accept service at a smaller remuneration than is received by the regular registered nurse, and believes that the hospitals should do their share to train the nurse of this type.

In a letter to HOSPITAL MANAGEMENT, which is of special interest in view of the discussion of short-term nursing courses which appeared in the March issue, Mr. Arps said:

"In the course of our experience with pupils training to become nurses, we have had to deal with a certain percentage of applicants who, while well able to acquire proficiency in the practical work, were unable to grasp satisfactorily the theoretical instruction of the course.

"Such pupils placed us in the predicament of either dismissing them from the school, after having devoted more or less time to it, thereby closing to them a vocation which they had chosen and for which very often they evidenced considerable aptitude, or to prolong their time of instruction and gradually force them through their examinations

"Again we have met pupils who, after entering the school, became discouraged at the length of time required for graduation, and left the school after varying periods of attendance, utilizing the knowledge gained at their own discretion.

WANT PRACTICAL NURSES

"Thirdly, we have been confronted with an ever-increasing demand for practical nurses as invalid companions, nurses sufficiently instructed to give a patient satisfactory medical attendance, while at the same time willing to take a hand in the management of the household, caring for the children, and above all willing to accept a smaller remuneration than demanded by the regular graduate. Especially during the recent period of epidemic and scarcity of nurses has this call for practical nurses become very insistent.

"It is an old truth that where there is a demand there will appear a supply. In these days of diminished households, of apartment, hotel and boarding-house life, the demand for a medically trained companion and nurse is sure to increase. The supply will appear, and we are of the opinion that it is better to begin in time to so shape this supply as to give greatest satisfaction to all concerned.

"We have discussed the subject repeatedly in our meetings of the training school board, and have come to the conclusion that it would be better to regulate the instruction, than to let her acquire instruction in a haphazard, irregular way. It has been proposed to give such applicants a course of training, comprising all the essentials of nursing, extending over a period of from twelve to eighteen months, and at the successful completion of the course, give them a certificate to that effect."

A different viewpoint is furnished in a discussion of the subject by Dr. C. L. Ruth Engelhardt, of Lansdale, Pa., Sanatorium, who urges that the student with ability to assimilate training rapidly enough to complete the course in two years instead of three be permitted to do so. She writes:

"The question of the shortening of the nurses' training course and the relative rank of the nurses so trained as compared with those who have been subjected to three full years of hospital discipline is a vexed and vexing question. There is an apparent injustice in ranking a two-year course with a three-year one, but there is an even grosser injustice in the assumption that all people must of necessity require the same length of time to attain the mastery of the ground-work of their profession.

"Shorten the course for all we never can, unless we materially change the entrance requirements of the training schools themselves. The three-year residence is none too long for the great majority of those women who enter this profession. As a rule, the probationer brings with her a comparatively untrained mind, together with small ability to grasp basic ideas in theory and carry them into practice. She must learn her theory by doing—and doing—and doing. It is a case of working *to* the brain *through* the hands—a much longer and more circuitous route than its reverse.

"Nevertheless, there is a handful of women who insist upon working logically from cause to effect, who must know reasons for everything, and who are capable of doing constructive thinking. When such women undertake a college course, their superior ability is recognized by their instructors, and they are permitted to pursue their course more rapidly than the others, so that the term of residence is shortened or they are enabled to take two degrees in the four years.

"Similar recognition of ability and ambition should be given in the training school. The pupil nurse should be permitted to take her courses as rapidly as she can assimilate them, and her ultimate rank should depend not upon the number of years, but upon her ability in the field of independent work. If she has mentality and enthusiasm, she may, at the end of her first year, have made for herself a wider field of experience than many a plodder who has faithfully, and automatically, and pathetically worked through every detail of the three long years —and never seen beyond those details into the fundamental principles of her science.

"If, however, we desire to give this help and encouragement to capable and ambitious nurses, we must first alter our entrance requirements, and, second, slightly rearrange our curriculum, so that instead of working from practice to science we shall first have our theory, and later the application of it. Nothing can take the place of the experience of months of actual work, and by no other means can the requisite deftness be gained."

"Who's Who" in Hospitals

Personal Notes of Men and Women Who Are Making the Wheels Go 'Round

DR. HENRY STORRS, F. A. C. S.,
Superintendent St. Paul's Hospital, Vancouver, B. C.

Dr. Storrs was recently appointed to the position of superintendent of St. Paul's Hospital, a Catholic institution, the advisory board having decided to put the medical and surgical departments in charge of a superintendent, while Sister Mederic will continue to act as supervisor. Dr. Storrs is a graduate of Harvard University, and has been assistant surgeon of the United States Public Health Service. For the past twelve years he has been connected with the Vancouver immigration office. During the war he was a captain in the U. S. Army, and acted as instructor in the Medical Officers' Training Corps at Ft. Riley, Kan.

Dr. Joseph B. Howland, the new president of the American Hospital Association, succeeded Dr. Herbert B. Howard as superintendent of Peter Bent Brigham Hospital, Boston, last May, when Dr. Howard retired after long and meritorious service. Dr. Howland was superintendent of the State Colony for the Insane, Gardner, Mass., from 1902 to 1907. Then he became assistant resident physician and assistant administrator of Massachusetts General Hospital, and held this position until his appointment at Peter Bent Brigham.

John E. Ransom, superintendent of Central Free Dispensary, Chicago, has become superintendent of the Michael Reese Hospital Dispensary, located on the West Side of Chicago, and as such will have much to do with health work among the Jewish population of Chicago. Mr. Ransom, who is one of the best known figures in the dispensary field, will be a regular contributor on this and allied subjects to HOSPITAL MANAGAMENT hereafter.

Dr. O. O. Fordyce, who has been appointed superintendent of the Toledo, O., State Hospital, is a graduate of the Medical Department, Ohio University, 1905. He was appointed intern in the Protestant Hospital, Columbus, O., and served for a year, following which he was appointed on the staff of the Athens, O., State Hospital. He became assistant superintendent of this institution in 1908, and superintendent a year later. He was transferred by the Ohio Board of Administration to the superintendency of Toledo Hospital last July.

R. L. Stribling has been appointed business manager of the new Central Texas Baptist Sanitarium at Waco. Miss Christine I. Smith is superintendent of nurses and heads the training school. She was formerly with the Baptist Memorial Sanitarium at Dallas.

Dr. L. L. Thomas has been appointed superintendent of Aultman Hospital, Canton, O., which is planning a large increase in capacity. Dr. Thomas has been associated with Max Wocher & Son, of Cincinnati, and has been familiar with the equipment of many government hospitals.

Barrow B. Lyons, superintendent of Delaware Hospital, Wilmington, Del., has resigned. Differences of opinion with the trustees regarding hospital policies led to his resignation.

Miss Jane Anderson has been appointed superintendent of the Shelby County Memorial Hospital, Shelbyville, Ill., to succeed Miss Lela Van Pelt, who resigned recently.

Miss Mildred Cullen has been appointed superintendent of the Belvidere, Ill., Public Hospital. She is a graduate of the Kingston, Ont., General Hospital.

Mrs. A. P. Smallwood has been made superintendent of Union Hospital, New Philadelphia, O., succeeding Miss Mary Marsh, who resigned. Mrs. Smallwood was superintendent of an emergency hospital operated at Pittsburgh during the flu epidemic.

Dr. D. C. Griffiths, superintendent of the Beatrice, Neb., Institute for Feeble Minded, has been appointed superintendent of the Lincoln State Hospital, succeeding Dr. J. D. Case. His successor at Beatrice is Dr. S. J. Stewart.

Dr. Alfred H. Garvin has been appointed superintendent of the Detroit Tuberculosis Sanitarium, now in course of construction at Northville. For fourteen years he was superintendent of the New York State Tuberculosis Sanitarium at Ray Brook, in the Adirondacks. He has been with the Red Cross in France.

Horace L. Brittain, Ph. D., who has been superintendent of the Toronto, Ont., General Hospital, has resigned. He has been succeeded by Dr. Charles K. Clarke.

Public Health Meeting

The annual meeting of the American Public Health Association will be held at New Orleans, La., October 27-30. The central themes of discussion will be Southern health problems, including malaria, typhoid fever, hook-worm, soil pollution and the privy, etc.

Completing Contagious Hospital

The Isolation Hospital of Grand Rapids, Mich., is practically ready for use, according to A. E. Davidson, director of public welfare. Complete equipment for the treatment of all classes of contagious diseases has been installed.

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The Changing Economic Status

Formerly the workingman, indicated in the cartoons as a person in overalls, wearing a paper box cap, went into the hospital as a ward patient when he was injured or became ill. Now he wants the best room in the hospital, and the head of his union, not to mention his employer, resents it if he doesn't get it.

Two authorities have called the attention of HOSPITAL MANAGEMENT recently to the changing economic situation, due to the fact that labor is much more highly paid than formerly. The economic status of organized labor has certainly been greatly improved, and the purchasing power of workingmen has risen with respect to hospital service, as it has with respect to all other commodities.

The experience of administrators of many large hospitals is that their wards beds are not always filled, while they find it difficult to provide as many private rooms as there is a demand for.

The public, in other words, is demanding a larger amount of hospital service that is paid for, and a smaller amount of service that is to be rendered without charge to the patient, though of course paid for by somebody—the community as a whole or various individual members of it.

The situation is interesting because it emphasizes again the lack of flexibility of the hospital which has too many beds in the form of wards. These facilities are inflexible both as to the character of the cases to be handled and the sort of service that the patient is to receive.

If economic conditions continue to improve, as far as the industrial employe is concerned, there will have to be a radical change in the hospital situation to take care of the changing requirements of the public. The poor we have with us always, it is true, and yet the percentage of the population that must accept free medical service may be so far reduced as to make the present proportion of ward beds excessive.

Furthermore, recent studies of hospital service show without question that a large precentage of hospital beds, at a given time are unfilled. This is particularly true of the hospital with numerous large wards. Certain classes of beds may be unavailable while others are more numerous than is required at the moment. This is a bad arrangement from the standpoint of efficient management, and gives the public the impression that hospital facilities are too great rather than too small. The fact is that there our present facilities are not always available as needed.

The demand for paid-for service coupled with the necessity of making hospital beds available for whatever service may be needed at a given time, is likely to bring about very marked changes in hospital design, and the economic situation which is changing the character of service required is worth studying because of the effect it is bound to have in this direction.

Pension the Faithful Employe

Have you any pensioners on your pay-roll? If not, why not?

LOUIS R. CURTIS, superintendent of St. Luke's Hospital, of Chicago, suggested recently to HOSPITAL MANAGEMENT that here is a subject that is worth agitation and careful consideration.

Hospital positions are not as a rule sufficiently remunerative to enable those who occupy them to accumulate much of this world's goods. Yet fortunately there is enough sentiment among those who occupy posts of responsibility to enable the hospitals to obtain loyal, devoted and long-continued service.

At the end of the service, when the employe has reached the point where he can no longer perform the duties of his position, he leaves his work without any assurance that the institution which he has given his best years will remember him in his declining years.

Occasionally a particularly deserving case is taken care of by the hospital, and when a faithful former employe is found to be in want some assistance is rendered, but generally speaking little provision is made by hospitals for the care of their superannuated employes.

MR. CURTIS believes, and HOSPITAL MANAGEMENT agrees with him, that pensions for old employes should be established. What do you think?

The Washington Compensation Idea

One of the state officials of Washington, who attended the meeting of the Health Service Section of the National Safety Council at Cleveland this month, told the industrial physicians who composed the membership of

Hospital Convention Calendar

American Conference on Hospital Service, Chicago, March, 1920.
Ohio Hospital Association Columbus, May 25-27, 1920.
Oklahoma Hospital Association, Oklahoma City, May, 1920.
Minnesota Hospital Association, Duluth, June, 1920.
Catholic Hospital Association, St. Paul, Minn., June 23-25, 1920.
American Association of Industrial Physicians and Surgeons, New Orleans, La., June, 1920.
American Hospital Association, Montreal, October 4-10, 1920.

this section that Washington provides complete medical and hospital service for injured employes, without limit as to time or amount.

In conversation with the managing editor of HOSPITAL MANAGEMENT later, he stated that a recent hospital bill of $1,400 was approved by the state, and that the hospital is authorized to give the patient whatever is necessary in the way of medical, nursing and surgical care, the bills being paid without question.

This is such a contrast with the situation in many other states that it is mentioned as an ideal well worth striving toward. The situation ordinarily is that there is a limit; that this limit is below the cost that is often involved in caring for industrial accident cases, and that the hospital and the doctor therefore collect but a portion of the amount due them.

This is absolutely wrong, because the elementary and fundamental feature of workmen's compensation is that the employe is entitled to indemnity for his accident, this indemnity to take the form of complete medical and hospital care, that he may be rehabilitated and restored to industry without disability, and of cash to make up in part at least for the earnings which he lost during the period of enforced idleness.

Whenever the hospital is compelled to handle an industrial accident case at less than cost, or finds that the state industrial board is arbitrarily reducing its bills because it is unable to supply the funds with which to take care of them at their face, the principle of workmen's compensation is being violated, and the hospitals have a right to enter a vigorous objection.

A compensation case is not in any sense a charity case, and it is up to the hospitals to demonstrate this to legislators, employers, state boards and insurance companies. Legislation will be provided along the proper lines by amending existing laws so as to increase the limit for medical and hospital care or remove it altogether, if the necessary publicity is given to the situation. There is no reason why the hospital should be the only unpaid factor involved in compensation.

In the meantime the excellent example of the state of Washington is worth noting, and it is to be hoped that many other states will be able to claim equal eminence in the not distant future.

Using the War Machinery

In every community there is a lot of machinery used during the war but now rusting in idleness. The hospitals are the logical users of this machinery.

Reference is made not to steel and iron, but to the human machinery organized for the prosecution of war work. The bodies of women who sewed for the Red Cross, and whose efforts in canteen work and other volunteer services formed one of the brightest spots in the whole story of war work in America—are they to be allowed to disintegrate, merely because there is no other cause sufficiently worth their while to enable them to continue?

The interesting thing about it is that the individual workers felt that they had lost something of great value when the necessity for war work was removed. They had learned to do things—they felt that they were really useful and productive members of society. They had the thrill of participating in an endeavor for the common cause, and they realized that they were "doing their bit" not for selfish ends but for the good of all.

The hospitals need the support of their communities, particularly the support of women. They can easily provide the work which will enable those who have been laboring for the Red Cross to continue to do something worth while, and the experience which has been gained in making hospital supplies for the Red Cross can be applied to good advantage in making similar items for the local hospital. And the work that it does has just such a sentimental appeal as the Red Cross—namely, the relief of human suffering.

HOSPITAL MANAGEMENT knows of one conspicuous case where a local hospital has taken over bodily the war activities of the women of its community, and they are continuing to work, under proper supervision, and with the stimulation that appreciation always gives, for the benefit of the hospital. There is no reason why other institutions should not do likewise. For it is a pity, from the standpoint of the individual as well as the hospital, to allow the splendid energy and enthusiasm manifested during the war to become dormant again for want of a purpose and a cause to expend them upon.

Are Your Trustees "Sold?"

The recent announcement of the retirement of an able young superintendent from the position he held with an Eastern Hospital, due to inability to have his policies adopted by the board of trustees, with the consequent friction that this involved, is worth comment, if only to point the obvious moral.

The superintendent derives his authority from the board, of which he is the appointee. He must look to the board for authority and support. It is evident, therefore, that he will succeed as a hospital executive only so long as his board is in sympathy with his ideas and methods, and he is in harmony with its policies and plans.

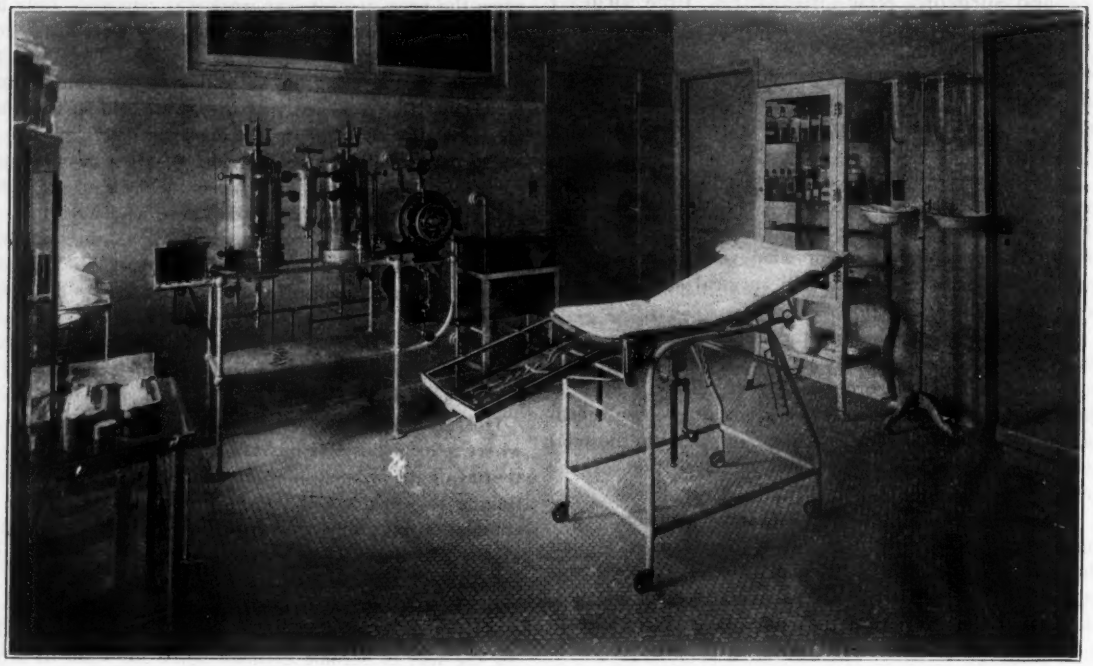
The hospital executive may have splendid ideals of service, and may be ever so sincere in his efforts to carry them out, but unless he has "sold" those ideals to the board of trustees, he has failed to lay the proper foundation for successful work.

Get your board lined up properly, committed to the plans that you believe in. It may take time, but if you're right, you can make the trustees see it. In the meantime, you are there to carry out the views of the board, rather than to combat them.

INDUSTRIAL DEPARTMENT

Hotel Pennsylvania Operates Surgery

Largest Hostelry in the World Equips Ten-room Dispensary, With Complete Laboratory and Clinical Facilities



OPERATING ROOM IN SURGERY OF HOTEL PENNSYLVANIA

One does not think of a hotel as in the same class with a large manufacturer, and yet they are both important industrial units. The hotel has its own special accident hazards, its own line of machinery and equipment, and therefore its own need for medical and surgical service. Added to this is the necessity for emergency facilities for for the care of its guests.

The Hotel Pennsylvania, of New York, the largest hostelry in the world, realized the need of having equipment and personnel right in the house for the care of employes and guests, and accordingly a high-grade dispensary, officially designated the surgery, was equipped. Three physicians and three nurses are in attendance, with specialists on call for consultation or treatment.

That the equipment is needed is demonstrated by the fact that the hotel is caring for an average of ninety-five cases a day, about two-thirds of these being employes and the remainder guests. The fact that the hotel, as an employer of labor, is operating under the provisions of the workmen's compensation law of the state makes the use of its own surgical facilities an advantage from many standpoints.

Eleven rooms on the tenth floor are given over to the surgery. There is but one bed, in what is termed the rest room, as the surgery does not receive patients for lengthy treatment.

Hotel guests, whose cases require more than emergency treatment, receive attention in their own rooms, while an employe receiving serious injury either is removed to his home or a hospital.

As employes sustaining injury in the course of their duties are provided for in the compensation law, a careful record is kept of the causes of accidents, so that proper reports may be sent to the authorities. It has been found desirable to prepare all records in triplicate.

The surgery is a model of its kind. The same scrupulous cleanliness which is to be observed in any well conducted hospital is duplicated in the Hotel Pennsylvania institution.

Separate entrances and visiting rooms are provided for male and female employes, and these are distinct from those provided for guests. Employes reach the tenth floor by service elevators and there is a direct passage from these to the surgery; hotel guests use the public elevators.

Dr. J. Darwin Nagel, house physician of the Pennsylvania, is in charge of the surgery. Service to employes is free, while the guests pay the usual fee.

ROOM USED FOR EAR, NOSE AND THROAT WORK

So far as known, the Pennsylvania surgery is the only hotel dispensary with a laboratory, completely equipped, and with a pathologist on duty twice a day.

Nose and throat cases are treated in a room given over exclusively to this purpose, and in it daily is held a clinic for head surgery.

One of the distinctive features of this room is a Sorenson portable air compressor, which may be taken to any room in the house and immediately set up for use in spraying, nebulizing and anesthesia. This weighs only 12 pounds. There is also a system of Dezeng examining lights. A complete cupping system is on hand in preparation for pneumonia cases or influenza. This is also used in conjunction with the air compressor.

There is a Kny-Scheerer combination sterilizer for large and small instruments, gauze, hot and cold water, as well as the usual operating room equipment.

Some details regarding the records of cases will be of interest. Two of these are kept in the office of the surgery, while in cases of injuries to employes a third is sent to the State Industrial Commission, as required by law. From this latter record the compensation to be paid injured employes is computed, no allowance being made until a patient has been away from work for fourteen days. For initial dressings the hotel receives $2 from the compensation payments and for subsequent treatments $1 each.

The office records consist of a card which is reproduced herewith, giving the history of the patient and the injury, together with the dates of treatments. A circle is placed around the date or dates on the card to show when an employe received treatment. Daily, at midnight, the card records are sent to the controller's office to be returned after being properly endorsed. Transcript of the cases coming under the workmen's compensation law go to the state commission on the forms provided, as well as to the insurance company handling the hotel's risks.

Injured employes are treated daily from 9 a. m. to noon and this, of course, continues daily until the worker is discharged. Where an employe sustains injuries of such serious nature as to require treatment for a period of time, he is sent to a general hospital.

The hotel does not restrict its treatment of employes to cases where injuries are sustained while on actual duty, but covers accidents occurring outside while a worker is on the way home or bound for the hotel to report for work. In all instances treatment and medicine are free.

The hurts sustained by employes are caused by burns, injuries from broken china, falls, etc. Fractures are occasionally reported; one case of a fractured arm sent the patient away for eight weeks.

Throat cases are immediately reported to the hospital, cultures being taken by the pathologist; skin cases are instantly called to the attention of the Board of Health; medical cases are recorded in the same manner as injury cases, except they do not come under the jurisdiction of the compensation law.

A painstaking record of treatment of guests also is maintained, a loose leaf ledger with a duplicate sheet being used on which is recorded the patient's name, nature of complaint, room and voucher number, the latter taken from a numbered book which is used to send to the controller's office, and on which the fee is entered, to be later added to the guest's bill. The duplicate white sheet also goes to the auditor daily.

Still another record is kept by the surgery, one showing the prescriptions of restricted narcotics, which under the law must be reported to the proper state authorities.

In cases where guests are injured through falling or in some other way, they receive treatment in the surgery without charge. In a hotel as large as the Pennsylvania, with its 2,200 rooms and floating daily population of several thousand, slight accidents to guests are unavoidable.

NAME

TIME NO. DEPARTMENT

ADDRESS

SEX AGE SINGLE · WIDOWED · MARRIED · DIVORCED SPEAK ENGLISH WHAT

DATE OF INJURY TIME A M P M

INJURY · COMPLAINT

TREATED BY

DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

REMARKS:

TREATMENTS AT $2.00

TREATMENTS AT $1.00

REPORT SENT TO ACC'T DEPT. TOTAL AMOUNT

FORM USED FOR RECORDING EMPLOYES' CASES

Besides Dr. Nagel, the house physician, who is at the head of the surgery, Dr. C. C. Osborne, assistant house physician, is on duty, both making their homes in the hotel, while Dr. Thomas C. McCoy is daily in attendance from 9 to 11 a. m. for nose and throat cases. Twice daily Dr. Edward Ellis, pathologist at the French Hospital, New York, looks after the pathological work in the splendidly equipped laboratory. Miss Francesca Farrell is the head nurse, being assisted by two others.

British Lecture at Harvard

Harvard University announces that Dr. Thomas M. Legge, Chief Medical Inspector of Factories in Great Britain, has been invited to give a course of Lowell Lectures and the Cutter Lectures in Preventive Medicine for the coming year. These lectures will be given under the auspices of the School of Public Health of Harvard University and the Massachusetts Institute of Technology, and the division of Industrial Hygiene. Dr. Legge will lecture in Boston on November 18 and ensuing dates.

Scope of Industrial Physical Examination

Difference Between Superficial Inspection and Real Survey Emphasized by an Authority on This Subject

By C. D. Selby, M.D., Toledo, O., Former Consulting Hygienist, U. S. Public Health Service.

[EDITOR'S NOTE:—The following paper on "Scope of the Physical Examination in Industry" was presented before the Health Service Section of the National Safety Council at its eighth annual congress in Cleveland, October 3, 1919.]

Industry exists solely for the purpose of converting raw materials into finished products of marketable value. Labor is employed in industry for the assistance it is in the accomplishment of that purpose, and its value is fixed by the skill and facility of its effort in that direction as manifested by the quality and quantity of its output.

Formerly, when labor was plentiful and the margin between the cost of production and a moderate selling price was sufficient to bring a reasonable profit, industry gave but little concern to labor. Workingmen came and went as they saw fit, were hired and fired as suited the fancy of their bosses, or were let out in dull seasons and taken on again when business improved. No well-thought-out attempt was made to offset unstabilizing influences and practically none to improve skill.

More recently, when labor has become relatively scarce and the cost of production higher, industry has been forced to realize that it has a problem in its labor relations; in fact, industry concedes this to be among the serious, if not the most serious, of its problems. Though old in existence, having been ignored, it is relatively new. Employers do not yet know how to solve this problem. They are groping. They have created welfare departments, employment, service, and sociological departments, have sought to amuse, edify, and pacify the working people, have divided profits with them and have appointed them to act on joint committees in the determination of policies—with little effect as indicated by the present unrest, the greatest the world has ever known.

Employers are still groping, and they are progressing. Labor turnover has been studied, absenteeism investigated, and the cause of spoilage and breakage sought. Information of value has been gained. It has been learned that the most capable and dependable workmen are those who are healthy, physically competent, and are assigned to tasks they like and know how to do rapidly and well. It has been learned that such, working under pleasant conditions void of undue fatigue and hazards to health and limb, are the best producers and consequently the best paid, are the most contented and valued of employes. Industry is now striving to procure such workmen; if unable to procure them in the usual way, to develop them; and, having them, to retain them by offering favorable working conditions and opportunities for further development and advancement.

REJECT MINIMUM NUMBER

The procurement of healthy, physically competent workmen may imply the rejection of those who are not so. However, it does not necessarily follow that such should be rejected outright and deprived of the privilege of gainful occupation. There are positions in industry, in fact in virtually every plant of reasonable size, that people of varying substandard conditions of health and body can fill with efficiency, to the profit of their employers and themselves. For example, defective eyesight may justly disqualify a man from operating a machine that requires acuity of vision, yet permits him to supervise a gang of laborers with competency. Again, a chronic bronchitis may render employment in a foundry hazardous and unprofitable, while in the open it may have no detrimental effect. Even the blind and the legless, the tubercular and the nephritic, are capable of productive labor under proper conditions of employment. Only the manifestly unfit and the victims of communicable disease should be rejected, is a growing opinion among employment managers. The procurement of health and physical competency among working people requires that they be selected for and assigned to such jobs as they are or can be adapted to—with rejection a last resort.

The maintenance of a healthy, physically competent force of employes requires that working conditions shall be such as to safeguard health and limb, that workmen shall have knowledge of how best to live and labor in compliance with the laws of health and safety, and that health and limb shall be restored as promptly and effectively as possible after impairments or disease have occurred.

The service of physicians, originally sought for the treatment of injured workers, has been found to be of use in the procurement and maintenance of healthy, physically competent working forces. Medical knowledge and skill are, therefore, welcome to industry, for anything that is capable of assistance in the stabilization and improvement of working forces is welcome. Because of this, medicine has come to be an important branch in the science of modern industrial management.

The physical examination is the means whereby physicians acquire the information they deem essential to the procurement and maintenance of healthy, physically competent working forces. It is consequently the basis of medical knowledge in industry and is fundamental to the successful practice of industrial medicine.

The scope of the examination should be broad enough to enable physicians to gather the information that is requisite. This means it should uncover defects and diseases that render employment hazardous to him who seeks it or to his fellow workmen. It should uncover imperfections that contribute to inefficiency. It should uncover diseases and substandard conditions of health. In short, the examination should be such as to divulge the true condition; it should be fairly comprehensive.

Although a complete physical examination, with blood pressure readings, urinalysis and other laboratory tests, is a desirable procedure to follow in industry, it is not always practical. In the first place, industry has not found it necessary except in unusual cases and, in the second place, industrial physicians are usually too pressed

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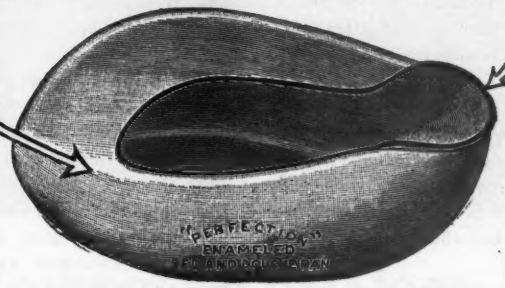

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for time to investigate deeply. Experience has gradually evolved four grades of examination, depending upon the objective sought, which in turn is frequently fixed by the policy of the company immediately concerned. They are as follows:

NATURE OF INSPECTIONS

1. *Superficial Inspection.* This consists of a hasty survey for obvious defects and apparent sickness. It considers height, weight, appearance, deformities, distance vision, hearing, hernia, and occasionally the heart and lungs, (stethoscope applied outside of shirt). Its objective is *rejection* of the evidently unfit and exclusion of communicable diseases.

2. *Inspection.* This consists of a more complete survey. All parts of the body are exposed and their condition noted. Diagnostic instruments are used when in the opinion of the physician they are needed. This is practically an examination—without urinalysis and other laboratory tests. Its objective is *selection and assignment* of workers.

3. *Examination.* This consists of a reasonably complete survey of the body according to accepted methods, and includes blood pressure readings and urinalysis. It is virtually the same as the examination required by life insurance companies. Its objective is not only the selection and assignment of workers, but their *health supervision* as well.

4. *Special Examination.* This consists of all measures that are necessary to a thorough study of the body, including intra-ocular observations, gastric analysis, rectoscopy, cystoscopy, X-ray interpretations, investigations of the nervous system, blood counts, etc. Very few industrial physicians are prepared to make such elaborate and painstaking examinations. Individuals needing them are usually referred to consultants. The objective of the special examination is the *diagnosis* of obscure diseases and pathological conditions. It belongs rather to the realm of internal medicine than to industrial clinics.

Inasmuch as by far the greatest number of occasions for investigation into the physical state of industrial workers occur when they seek employment, the inspection would appear to be the most useful of the four grades. It has the advantage of gaining enough information to enable physicians to eliminate the manifestly unfit, if desired, and to advise intelligently in the assignment of others, and to do so with a minimum expenditure of time. Furthermore, it secures enough information for physicians to determine which individuals must have additional study, in the form of the examination or special examination, for the intelligent supervision of their health.

To exemplify the author's conception of the scope of examination or, more properly, the inspection, the routine in use at the Toledo plant of The National Malleable Castings Company is outlined as follows:

POSITIVE EXAMINATION

The worker is received fully clothed and remains standing until the feet are inspected. He is greeted in a friendly manner, and attempts are made to put him at ease if embarrassed or backward.

(1) As he enters gait, carriage, and appearance are observed.
(2) He is weighed and measured for height.
(3) Vision, both near and far, are tested.
(4) The right ear and right side of head and neck are inspected. While this is being done the hearing on that side is estimated by a question in a low voice.
(5) This procedure is repeated on the left side.
(6) The face is inspected; the condition of the eyes is noted by lifting and depressing the lids; the nares, the mouth and teeth, then also the throat and the anterior surface of the neck are observed. The worker is requested to remove all clothes from the waist up.
(7) The chest is inspected and the condition of the heart and lungs estimated by percussion and auscultation.
(8) The abdomen is inspected and the condition of organs estimated by palpation and percussion.
(9) The back is inspected and the posterior aspects of the lungs estimated by percussion and auscultation.
(10) The spine is palpated and flexed.

The worker is requested to loosen his trousers and undergarments and let them fall down around the ankles.

(11) The external genital organs and inguinal regions are inspected and palpated.
(12) The sacroiliac articulations are examined and the anal region inspected.
(13) All extremities are inspected, mobility of joints and condition of blood vessels being especially observed.

The worker is now requested to draw up his underclothing and trousers, after which he is directed to sit down and take off his shoes and socks.

(14) The ankles and feet are inspected. If there is any doubt about the arches, impressions are taken.
(15) Blood pressure readings are taken (optional).
(16) A specimen of urine is obtained (optional).

The worker is now dismissed. During the inspection as defects appear, the physician is expected to inform the worker of their presence and to give him such advice as may seem wise, an interpreter being used when needed. Special features are emphasized immediately before departure and further advice given if necessary to enable the worker to do his work without hazard to health.

In commenting upon this procedure, it may be said that inspections by this method may be made superficial or thorough, as desired, with minimum expenditures of time and effort. The inspection moves easily, without offense, from the exposed parts of the body to those the blunt exposure of which can prove embarrassing to the worker. It meets the requirements for job placement, and prepares the way for subsequent examinations essential to the supervision of health. When accompanied by appropriate advice, when the information obtained is properly used in assignments to work, and when those found defective are afterwards helped through medical and social service and continued advice—then the inspection contributes to the health, earning power and peace of mind of the workers, and its scope may be regarded as being adequate.

In some establishments applicants for work enter the examining room stripped. If this can be done without offense, the physician's time may be thereby economized to the extent consumed in undressing and redressing. This is an advantage where large numbers are hired, but the

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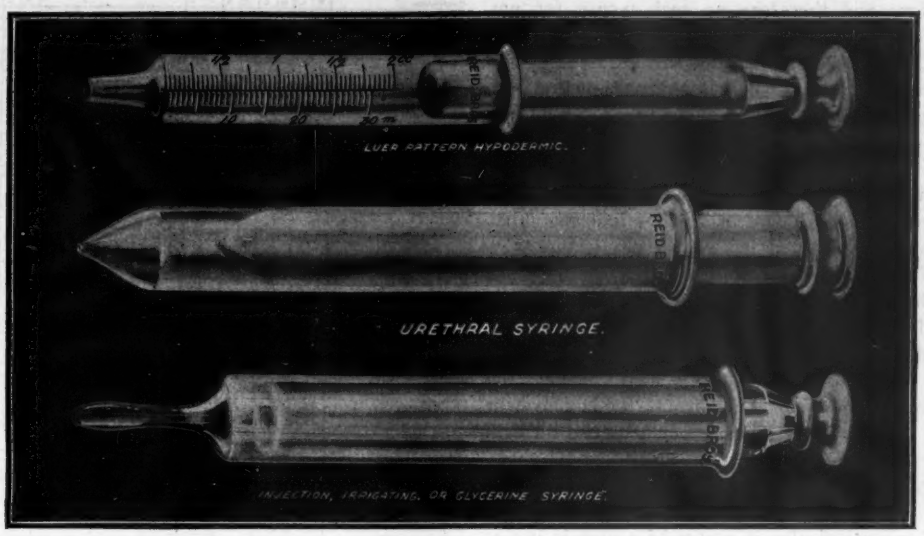

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Reibro Luer Pattern Hypodermic Syringes are made of the highest quality syringe glass, skillfully annealed. They possess extraordinary tensile strength. Both the barrel and plunger are ground to perfectly fit and no extra metal part is required to hold plunger at any desired point of graduation. The same careful attention is given the slip point to insure a precise fit at the needle hub.

The indelible pigment in the scale is an exclusive feature. It is easily read and innumerable sterilizations will not efface it.

Every "REIBRO" syringe is tested in every conceivable way. Tested in boiling water against breakage—tested with needle against leakage under pressure—tested for accuracy of graduation. The result is a uniformly perfect product.

1½ CC—25 Minim	Per Doz.	$ 6.00	20 CC	Per Doz.	$19.60
2 CC—30 Minim	Per Doz.	7.50	30 CC	Per Doz.	36.00
5 CC	Per Doz.	10.80	50 CC	Per Doz.	52.00
10 CC	Per Doz.	15.00	100 CC	Per Doz.	66.00
1 CC—Tuberculin	Per Doz.	$12.00			

Reibro Urethral Syringe with cone shaped barrel and plunger point. Made of the best syringe glass; barrel and plunger ground and fitted with the utmost precision. May be subjected to repeated sterilization in boiling water.

¼ Ounce Capacity..... Per Doz. $4.50

Reibro Injection, Irrigating or Glycerine Syringe. Plunger and barrel are ground and fitted with the same care as with the Hypodermic Syringe above. Made of heat treated glass with catheter points. May be sterilized in boiling water without fear of breakage.

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tendency of physicians, speeding from one to another, is to slur the educational feature, which is of exceeding importance. On the contrary, if the doctor is forced to wait, he has the opportunity to discuss with the workers their conditions and therefore no real excuse for not doing so.

That which has been said applies to the inspection of men. The inspection of women is quite another matter and, although the same general plan may be followed, considerable tact and discretion must be used. The thoroughness of the inspection must frequently be dictated by discretion, and it is wisdom always to have a woman nurse present. Good judgment really indicates that women should be inspected by women physicians.

For the further exemplification of the author's conception of the scope of the inspection, a form which has been devised for recording the information is presented, as illustrated. This form has been evolved from experience in the physical inspection of school children, the inspection and examination of applicants for employment and, during the war from studies of industrial medical departments and the forms used in sixty-four of them. The form will not be described as, with the exception of the code at the top, it is self-explanatory. The code, it may be said parenthetically, is a part of a plan in use at the Toledo plant of The National Malleable Castings Company for determining the kind of operation an applicant for work is physically fitted; a description of this plan and an explanation of the code is not appropriate to this discussion.

REPORT OF PHYSICAL EXAMINATION

FORM USED FOR PHYSICAL EXAMINATIONS

The principal advantages of the form are as follows:

ADVANTAGE OF FORM

(1) It provides for specific mention of conditions most usually found providing also for the recording of unusual conditions.

(2) It records finding practically in the order of inspection and indicates at a glance the side of the body involved.

(3) It permits recording with a minimum of clerical effort.

(4) It permits tabulations and compilations of reports with a minimum of medical knowledge and clerical effort.

(5) It permits diagramatic representations of abnormalities and amplified description of special features.

(6) It permits the recording of three subsequent inspections in direct comparison with the original And

(7) It has a wide range of adaptability in the recording of information secured by means of any of the various grades of examination, except the special examination.

In the use of this form, the physician may himself register his observations or, better, he may memorize the numbers and indicate to his clerks the finding by their numbers. The latter method is of course quicker and easier for the doctor.

It will be said in closing that neither the procedure for physical inspection as outlined nor the form is regarded as final or conclusive or in any sense a finished product. Minor changes and additions are constantly being made in both as experience indicates their need. They have been presented here today primarily for the purpose of exemplifying the author's conception of the scope of the physical examination in industry. It is hoped, however, that their presentation may stimulate this organization to take further steps toward the standardization of the examination and the form, and a promulgation of a better conception of the relation of the examination to industrial medicine and of that to the needs of industry and labor.

New Orleans Program Out

Section of Industrial Hygiene of Public Health Association to Have Meetings

Many interested in industrial health service will attend the meeting of the American Public Health Association to be held in New Orleans late this month. The Section on Industrial Hygiene has prepared particularly strong sessions, the detailed program for which is as follows:

Monday, October 27, 2 p. m.

Address of Chairman. Need and Method of Coördinating Federal, State and Local Health Agencies in Promoting Industrial Hygiene.

A Program for Organizing and Coördinating Industrial Clinics. T. GRIER MILLER, M. D., *University of Pennsylvania, Philadelphia, Pa.*

Utilizing the Out-Patient Department for Industrial Clinic Work. WADE WRIGHT, *Massachusetts General Hospital, Boston, Mass.*

Utilizing Records of Plant Medical and Surgical Departments for Furthering Plant Hygiene. BERNARD J. NEWMAN.

Placement and Replacement of Employees on the Basis of Physical Examinations. HARRY MOCK, M. D., *Chicago.*

Classifying Employees and Increasing Production by Improving Their Physical Condition. WM. J. CURRY, M. D., *Holyoke, Mass.*

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HEMOSTATIC SERUM (Hemoplastin) is indicated in the treatment of all types of hemorrhage, particularly those depending upon faulty coagulation of the blood. It is used with marked success in the treatment of pulmonary hemorrhage, purpura hemorrhagica, intestinal bleeding, bleeding of the new-born, indolent ulcers; also hemorrhages incidental to various surgical procedures, such as bone operations, intracranial surgery, herniotomy, tonsillectomy, amputations and hysterectomy.

HEMOSTATIC SERUM (Hemoplastin) constitutes a very efficient hemostatic for local treatment, a small piece of sterile gauze being saturated in the serum and applied to the bleeding surface.

HEMOSTATIC SERUM (Hemoplastin) is the most efficient hemostatic that has thus far been developed. Both laboratory and clinical evidence substantiate this conclusion.

Bio. 70. 2-mil (2-Cc.) bulbs.
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DETROIT

Health Hazards Not Limited to Industry

Few Diseases are of Purely Industrial Origin, but Employer Is Interested in Creating Favorable Conditions

By Charles A. Lauffer, M. D., Medical Director, Relief Department, Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.

[EDITOR'S NOTE:—The following paper on "Industrial Health Hazards" was presented before the Health Service Section of the National Safety Council at the eighth annual congress in Cleveland, October 3. Dr. Lauffer presided as chairman of the section.]

The human dynamo generates a fixed quota of energy. If speeded up, it stands a determinable overload with immunity; if given rest periods, kept in repair, and properly sustained, the human dynamo will last three score years and ten, probably longer. The overloaded dynamo develops heat, in consequence of which wear and tear are greatly accelerated; if temperature readings show that the dynamo heats up too much, an early breakdown can be definitely predicted. The same applies to the human dynamo in which physical defects and psychic maladjustments, as well as speeding up, overloading, and shortened rest periods, develop "heat," known as fatigue.

Modern industrial developments, collecting vast multitudes of men and women in industrial establishments, bring to the forefront the problem of health hazards. The vast exodus from rural to urban life during the past generation, forcing into indoor occupation individuals whose ancestors for generations lived out of doors, has further emphasized the problem of health hazards.

A study of these problems is vital to the employe; health, long life, and happiness are involved. It is fundamental to the employer; increased production; diminished labor turnover; contented ranks of healthy, happy veteran employes—all tending to increased profits.

The employe asks for himself and his sons: Is it a safe industry in which to seek employment? Is there any special liability of incurring a trade disease? Or of suffering early impairment in health? In short, what are the health hazards of this and that industry?

I. The industrial health hazards of the employe may be grouped as arising from:—

1. Poisons, dusts, fumes, gases.
2. Heat, humidity, ventilation.
3. Lighting.
4. Crowding.
5. Fire peril.
6. Association with diseased employes.

The Harvard Chart gives a readily accessible grouping of the industrial poisons; a consideration of all of them would be out of place in this connection. Lead, arsenic, and mercury cause definite toxic effects, when absorbed by workers in these metals. The most used poison is lead. Not every employe who handles a paint brush, however, gets lead colic; some paints are innocent of lead, yet employes who have never touched lead will bring in diagnoses of "lead poisoning," merely because an attending physician knows they are painters. Lead storage in the tissues may ensue when lead is carelessly handled, yet lead poisoning is practically unknown in large plants handling hundreds of tons of lead every year. The extent of industrial lead poisoning, we know, is much less than some reports would have us believe. Employes who cannot be taught to wash their hands before eating, and who never clean their finger nails, nor care for their teeth, are particularly liable to lead poisoning. Lead cannot be eaten with immunity, within or without the industries, but with individual cooperation, plus careful industrial supervision, the lead hazard can be mitigated. Precautions in handling lead reduce, almost remove, the health hazard from this source. Individuals who have once developed toxic lead symptoms should be given other employment, as the poison is accumulative, and is never entirely eliminated, hence relapses readily occur, making permanent transfers to other lines of work necessary.

EVERY INDUSTRY ITS OWN PROBLEM

Persons having a tendency to eczema, or furunculosis, may develop a skin rash from the solvents employed in removing varnish, shellac, and various insulation dope. Cutting oils, recovered by centrifugal methods, provoke skin infections; forced filtration through successive layers of filter paper removes minute metallic spicules, and filters out bacterial flora, that affect the skin. Cutting compounds are often culture media for pathogenic bacteria, and may require sterilization—by heat, chemical, and filtration methods. Minute burns from flying hot chips; abrasions by metallic spicules in dirty cotton waste, —used in rubbing hands and arms—rough scrub-brushes or caustic soaps, may provide such dermatitis. Every industry has its own problem, or succession of problems, in this line. Persons manifesting such susceptibility should be transferred to other lines of work; some individuals can work in chemicals for months without developing trade dermatoses, while others develop such trouble quickly. When 150 employes are subjected to the identical exposure, and only three develop industrial dermatoses, the factor of personal susceptibility is suggested. Attention to the toilet—thorough, careful cleansing of the skin—tends to reduce industrial dermatoses.

Dusts and fumes are drawn out of their source, in the well-equipped modern factory, so that the factory atmosphere is, or can be made, relatively clean. There is justifiable ground for pride, where a wholesome factory atmosphere is maintained. The competition between factories, to make working conditions the best possible, has not yet been over-worked, and can be promoted to the mutual advantage of both employe and employer. It is up to the initiative of employers, cooperating with architects, ventilating, heating and lighting engineers, and employes' committees, to make working conditions safe from the health standpoint.

Pulmonary tuberculosis should be mentioned, in its relation to dust and fumes. Dusts in themselves are not infectious. Dusty air is not salubrious, but with the dust evil minimized, as in modern industries, there are few occupations that can be condemned as unfit for healthy men.

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We are told that guinea pigs, kept in cement mills, develop no calcicosis, and employes seldom do. While the controversy over cement dust still rages, its dangers are less excessive than some have imagined. The dust menace in other trades is, in comparison, relatively negligible. Coal miners develop more or less anthracosis; iron workers may develop siderosis. Marble cutters formerly developed calcicosis, which health hazard is now much reduced by suction devices for the removal of dust at its source. The inhalation of foreign particles—such as coal, iron, stone, textile fibres, animal hairs and furs, grain dust—gives rise to pigmentation of the lungs. This pigmentation in itself is of no consequence and everybody has it to some extent.

Dusts are mostly filtered out in the nose; if the dusts reach the bronchial tubes, they are caught in the bronchial cellular cilia, and coughed up, being expectorated with the bronchial secretions. It is contended that none of the dust reaches the alveoli. Particles that reach the peribronchial lymph-nodes, and the mediastinal lymph-nodes, penetrate through lymph channels from the bronchi.

Tuberculous individuals often gravitate to industries where the jobs are light, and the work within their ability. In the quiescent stage of their diseases, these men should be employed. Moreover, many employes work indoors that should work outdoors. The high incident of pulmonary tuberculosis attributed to certain industries requires appreciative consideration, as an industry is scarcely responsible for an injudicious choice of occupation on the part of an employe, suffering from, or predisposed to, pulmonary tuberculosis.

Tuberculosis is a house disease; indoor life is largely responsible. It cannot be fairly classed as a trade disease. The purely industrial diseases are but a fraction of a per cent of the sum total of industrial morbidity; they are but a drop in the bucket. The preventable diseases, non-industrial in source, loom large in comparison. Teeth and tonsils, "coughs and colds," cause a hundred times as much sickness in the general industries as do the industrial poisons.

The segregation and isolation of persons with "colds" is considered good practice, as "colds" are "catching." "Coughs" and "colds," moreover, are communicated by crowding together in factories, and susceptibility to such infections is heightened by poor ventilation, drafts, overheating, neglect of humidity control. These problems of engineering, successfully solved, make the factory atmosphere safe, and minister to the health and comfort of all parties concerned.

EMPLOYER'S HEALTH HAZARDS

II. The industrial health hazards of the employers may be grouped as:

1. Decreased production; machines lie idle; sick employes are irregular, discouraged, lack "pep."

2. Excessive labor turnover, due to ill health, unfitness for jobs assigned, prevalence of epidemic and infectious diseases.

3. Increased accident compensation expenditures, due to sickness masquerading as injuries. Cases arise daily, where conditions are pathological, but trauma is alleged; or in which a minor trauma has provoked a prolonged period of disability or an unusual degree of permanent impairment follows injuries, not in consequence of the

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III. Since these health hazards face the industrial manager, what can be done about it? How can they be avoided? Measures to this end are:—

1. *Industrial Health Clinics,* group diagnoses; health service measures; repairing defects; reclaiming those disabled by diseases, as well as those crippled, and fitting them into selected positions in the industries; health education.

2. *Legalized releases for defects that cause abnormally long periods of accident disability.* Hernia, varicocele, varicose veins, healed tubercular foci in joints, lungs, etc., valvular heart defects, eye defects, amputations, etc., should be charted, and an employer not made financially responsible for defects and diseases arising from causes unrelated to the employment, nor for aggravations of the same.

3. *Obligatory Post Mortems.* When the cause of death is in dispute, the report of the post mortem should terminate the controversy. So many deaths, occurring from pathological causes, but reported as arising from accidental injuries, received in the course of employment, make post mortems essential, if justice is to be done all parties.

4. *Federal Health Charts.* Transient employes lose a day, undergoing the physical examination that precedes their employment. A Federal health chart, renewed annually, valid everywhere, would be invaluable for the transient worker, as well as for the continuous worker, who remains loyally by his employer year after year. The onus of the physical examination should be removed from the industries. Proper placement in industry requires the truth about physical defects. The truth, concealed, works the greatest health hazard to the prospective employe.

An annual health inspection by the staff of a diagnostic clinic, for every citizen between 18 and 55 could be achieved under Federal supervision. The surgeon's general's office could establish in every community a Federal "Good Health" station, emphasizing diagnosis, and could recommend such remediable measures as the health maintenance of every citizen of draft age requires, both for industrial service, and for war. The early correction of defects is desirable; the early recognition of incipient diseases leads to successful treatment.

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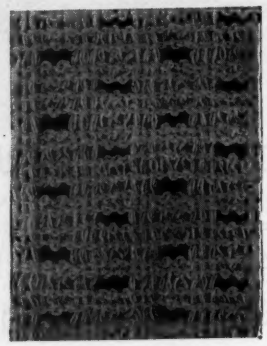

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HAZARDS OUTSIDE INDUSTRY

IV. Employes encounter health hazards apart from industrial service, that revert back, affecting their industrial life. Such health hazards may be grouped as:

1. *Inherited Tendencies;* bad or indifferent physical and mental endowment.

2. *Family Problems.* Unhappy home life menaces industrial safety and health.

3. *Financial Problems.* Worry over bad investments, high cost of living, wife's or children's extravagance, or other matters, may induce more fatigue than the day's work.

4. *Social Life.* Employe may belong to too many things, and be too popular, losing too much sleep. An employe's occupation may have less to do with his health, and his continued industrial efficiency, than the way he spends his evenings.

5. *House Problems.* Individual houses are desirable, afford every family its own home, in sewered towns, with paved streets. Crowded tenements and boarding houses contribute to health impairment.

6. *Community Health.* The acute infectious diseases encountered in the industries of any community are a reflection of the diseases then prevalent in that community. Measles, mumps, typhoid fever, scarlet fever, influenza, grip, "colds," bronchitis, pneumonia, smallpox are encountered. Isolated cases of these diseases, sometimes endemics, or epidemics, occurring in industrial plants, are traceable to community sources of infection.

7. *Neglect of Personal Hygiene.*

(a.) *Neglected teeth.* The neglect of teeth among industrial workers is appalling. Putrescent stumps, dental abscesses, pyorrhoea, and incomplete dentures are common; money is spent more cheerfully for most everything else than for dental prophylaxis and dental repairs. The teeth constitute the first line of defense in conserving the digestion; swallowing food swarming with myriads of bacteria from putrescent teeth causes indigestion. No man would buy a horse that has lost its teeth. "Life is digestion"; our strength and energy come from our food, yet some men are so unreasonable as to attribute their ill-health and impaired strength to their work, while neglecting their teeth, thus denying their bodies the rejuvenation that comes from wholesome food, thoroughly masticated, and thereby properly prepared for assimilation.

(b.) *Diseased tonsils.* Tonsillar infections, both locally and by referred manifestations, cause much loss of time in the industries. The alleged injuries, in which there are no visible nor palpable evidences of trauma, such as alleged sprained back (lumbago), alleged sprains of shoulder, elbow, wrist, ankle, as well as the several types of arthritis, rheumatism, and neuritis, have the tonsils as possible portals of entry for the infection.

(c.) *The venereal peril.* All three venereal diseases, in their infectious stages, should bar employes from industry. Stricture and other complications cause lost time years after the gonorrhoeal infection has been forgotten. The bone injuries of old syphilitics, with case reports; syphilitic leg ulcers also masquerading as in-

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juries; gummata and sinuses, presenting long terms of disability, arising from slight injuries; and serious results in mild eye injures, if recorded in detail, would attest the excessive liability to injury, and the poor recoveries registered by syphilitic patients in the industries. Wasserman tests, as a routine hospital measure, are in order.

(r.) Physical defects, such as hernia, eye strain, etc., known to exist, yet repair and corrective measures are postponed.

(e.) Constipation woefully neglected.

(f.) Neglect of home sanitation, ventilation, etc.

(g.) Balanced diet unobserved.

(h.) Deficient sleep.

INDUSTRY GETS SECOND-RATERS

Most men before thirty are second-raters, or third-raters; physical defects exist, and morbid processes are implanted from early life, frequently before the industrial age. Physical examinations in the public schools are often farcical; many remediable defects are overlooked, those encountered are merely reported to parents who infrequently act upon such suggestions. Consequently, the industries receive multitudes of second-raters, who develop into third-raters, who, had their defects been corrected early and had their mode of life been more hygienic, could give a better account of themselves.

An employe spends only 8 or 9 hours in industrial service; in his home life, community, and social life, during the other 15 or 16 hours of the day, he likewise incurs health hazards. The superior lighting, heating, and ventilating systems installed in many modern factories make these industrial plants more hygienic from a public health standpoint than the homes, movie theatres, and churches, many of which are more crowded and worse ventilated. To be consistent, homes, boarding houses, hotels, theaters, clubs, etc., in which employes spend more hours than in the factory, should be scrutinized and inspected as industrial plants now are, in probing sources of health impairment, and routes of infection from communicable diseases.

The industrial sick rate is augmented by a variety of physical defects, most of which are remediable, and those that cannot be cured can be adequately relieved to enable employes to keep at work, if they so elect. A man must be reasonably healthy to be an efficient worker. A small maladjustment, a minor neglect, will sometimes lead to serious complications. An employe with a toothache, whose attention is thus distracted, will give more thought to his tooth than to his job. An ingrown toe-nail is preventable; through neglect or improper treatment, it may cause lost time. Elementary hygiene, and the proverbial "stitch in time," must be observed, if a man in industry, or out of it, is to maintain his health and efficiency.

While there are industrial health hazards, and while the zeal in discovering and eliminating them is commendable, the facts remain that the purely industrial diseases are very rare in the general industries; that preventable, non-industrial ailments are the preponderating cause of sickness disability and health impairment.

The daily contact with industrial disability, both sickness and accident, brings one in touch with their intimate interrelation. Septic absorption from such foci as teeth, tonsils, prostate, accessory nasal sinuses, peribronchial

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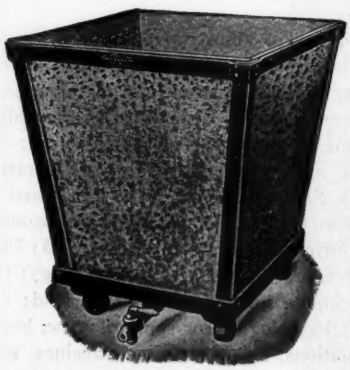

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lymph nodes, etc., cause much of the disability improperly labeled as injury; patients like to be told that their occupation does not suit them, that their work disagrees with them, but they may resent it if told that their teeth need repair, that their tonsils should be removed, that corrective lenses should be worn for their failing vision, or that arch supports are required.

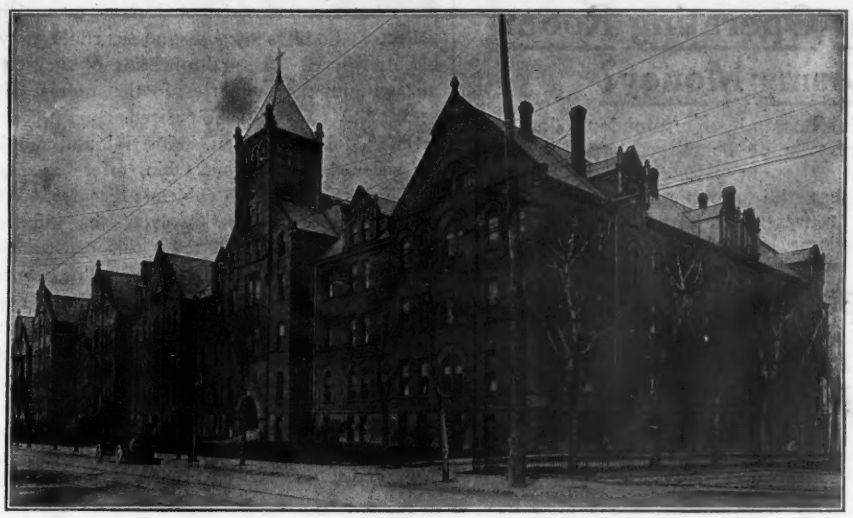
This leads to the question of industrial fatigue. If a man works hard enough and long enough he will naturally get tired. Industrial fatigue may not be excessive, but the fatigue from other sources, combined with the industrial fatigue, may prove detrimental to an employe. For a man to be fair with himself and with his job, he must ascertain to what extent his job is tiring him out, and to what extent his fatigue arises from emotional causes (as domestic affairs, financial cares, worry, etc.); from septic absorption (as teeth, tonsils, prostate, etc.); from physical defects (as eye strain, impaired hearing, flat footedness, hernia, etc.); from latent diseases (as incipient tuberculosis, etc.); from acute infections (as grip, nasal catarrh, bronchitis, etc.); from improper diet; from unhygienic home conditions; from loss of sleep; and from other potent factors that may enter into the equation, in the accurate estimation of his total fatigue.

A worker who is constantly fatigued from any cause, or any combination of causes, will lose time now and then from sheer exhaustion. The fatigued worker is more susceptible to infectious diseases, from which he makes a retarded recovery; he becomes more stupid, and because less alert, he more readily meets with accidental injury, from which he recovers slowly, since he has impaired vitality, and we have injury plus sickness to deal with.

There being this interrelation of sickness and accident disability, constituting the twilight zone of sickness and injury, it naturally reverts to the industrial clinic to find out the sources of fatigue, to evaluate the factors that contribute to the fatigue total, and to facilitate the recovery of the individual, in the manner indicated by the findings of the inquiry.

There arise specialties in industrial practice, when an industrial diagnostic clinic is organized; specialization is needed, employing diversified talent and training, such as required on a hospital staff. Beginnings of the industrial diagnostic clinic are observed at many places; the scope of specialties now covered are: (1) Operative surgery, clean; (2) Septic surgery; it is ill-advised to allow the doctor who treats boils, and infected wounds to care for fresh injuries, or redress clean cases; (3) Physical diagnosis—special reference to heart and lungs; (4) X-ray service, developing into an ever larger field; (5) Dental service; (6) Pathologist, for sputum, urine, blood, Wasserman examinations, tissue staining, vaccines, etc.; (7) Oculist—injuries and diseases of the eye, and optical service.

In addition to these special lines of medical and surgical service, the Works Dispensary, as occasion demands, consults with orthopedic and general surgeons, internists, alienists, neurologists, dermatologists, oculists, ear, nose, and throat specialists, endeavoring to establish correct diagnoses, and co-operate in every legitimate way with the best available agencies for speedily restoring the



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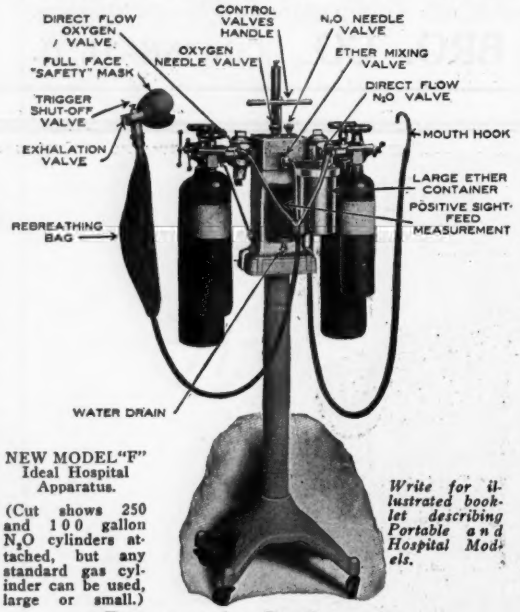

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disabled to health and to industry. Where the plant employs but few industrial physicians, group diagnoses, the collective findings of a diagnostic clinic, may be accessible elsewhere. The multiplication of such centers, within and without the industries, in the interest of health conservation, is much to be desired.

The co-ordination of industrial and municipal health activities, as in Akron, Ohio, offers a solution of the problem of controlling epidemic diseases. With the community health problems solved, the industries will be spared the absenteeism from this cause, and the slackened production incident thereto. The works dispensary can become an out-station of the city department of health, with test tubes for throat cultures, so that suspicious throats may be swabbed when the patients are sent home, and no delay be encountered in getting reports on findings to attending physicians.

The control of industrial health hazards is entirely up to the initiative of the industrial management. Health engineering experts—consulting physicians—specializing in the reduction of the health hazards, are being employed by the industries, in conjunction with engineers in associated lines, to reduce these hazards.

Educational effort from within the industries strives to stimulate the initiative of employes into foresightedness along health lines. To what extent the industries can enter into community activities without becoming paternalistic is a debated question which we will not discuss. Model house building enterprises—helping employes acquire their own homes—building and loan associations, banking, stores and restaurants on the no-profit basis, clubs, social centers, playgrounds, hotels for employes, industrial and technical schools, apprentice courses with technical schooling, athletics, bands, and glee clubs are among the forms of community enterprises fostered by many of the larger industries, and which have the endorsement and approval of employes.

The new spirit abroad recognizes participation in industry as in the nature of a social service; constructive good-will,—based on mutual confidence and real justice,—alone can operate effectively to solve the problems to which industry gives rise. In the trinity of production, Capital, Labor, and the Community must unselfishly co-ordinate their common functions of serving one another.

There are health hazards within the industries, that industrial initiative should control; within the communities that the co-ordination of industrial and community health service can control; and within the scope of the individual, there are health hazards which require his personal initiative to combat successfully. With such co-ordinated efforts, the human dynamo will generate energy uninterruptedly; the worker, secure in the enjoyment of a fair share of the rewards of toil, can live to a ripe and honored old age.

Plans $2,000,000 Hospital

The University of Michigan is preparing to start work on the construction of a new hospital at Ann Arbor, the cost of which will be in the neighborhood of $2,000,000.

Assembly Hall Dedicated

The Municipal Tuberculosis Sanitarium of Chicago recently completed the construction of an assembly hall, which will be used for gatherings of all kinds. The building was dedicated June 29.